DOCUMENT RESUME

ED 358 295 CE 063 822

TITLE	Technical and Vocational Training.
INSTITUTION	European Centre for the Development of Vocational Training, Berlin (Germany).
REPORT NO	ISSN-0378-5068
PUB DATE	93
NOTE	81p.
AVAILABLE FROM	UNIPUB, 4661-F Assembly Drive, Lanham, MD 20706-4391 (Catalogue No. HX-AA-92-002-EN-C: $7.25; annual subscription: $12.10).
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Vocational Training; n2 1992
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Comparative Education; Developed Nations; *Educational Change; *Educational Development; Educational History; Education Work Relationship; Foreign Countries; Job Skills; Job Training; Secondary Education; Skilled Workers; Teacher Education; Technical Education; *Vocational Education
IDENTIFIERS	Denmark; *European Community; France; Germany; Great Britain; Japan; Netherlands; Portugal; Spain

ABSTRACT

This issue focuses on the various forms that secondary technical and vocational education takes in different European Community Member States. "The Future for Skilled Workers" is an interview with Burkart Lutz, a German researcher. Other articles are as follows: "Contradictions in Technical and Vocational Education: The Outlook" (Paolo Garonna); "Current Challenges to Basic Vocational Education" (Carl Jorgensen); "Education, Training, and Employment in Germany, Japan, and the USA--A Comparative Outline of Problems" (Joachim Munch); "Initial Vocational Training in France: Competition, Hierarchy, and History" (Jean-Louis Kirsch); "Secondary Training in Portugal" (Luis Imaginario); "Initial Vocational Education in the Netherlands: Current Developments" (J. Frietman); "Initial Technical and Vocational Education and Skill Formation in Britain" (David Ashton); "Brief Analysis of the Types of Vocational Training Available in Portugal" (E. Marcal Grilo); "The Reform of Vocational Training in Denmark" (Soren Pedersen); "A School in Touch with Its Environment" (Lluis Sacrest i Villegas); "Management Training for Head Teachers Based on Business Models" (Renato Di Nubila); and "Recognition and Validation of Vocational Skills in France" (Bernard Lietard). These articles are followed by descriptions of reports, papers, projects, research, and legislation and useful addresses. (YLB)

****
*   Reproductions supplied by EDRS are the best that can be made   *
*   from the original document.   *
****

ED358295

ISSN 0378-5068

No 2/1992

Technical and vocational training

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

● This document has been reproduced as received from the person or organization originating it

☐ Minor changes have been made to improve reproduction quality

● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C Politi

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE 063 822

BEST COPY AVAILABLE

Vocational training

Vocational Training

CEDEFOP
European Centre for the Development
of Vocational Training
Jean Monnet House
Bundesallee 22, D-1000 Berlin 15
Tel.: (030) 88 41 20
Telex: 184 163 eucen d
Fax: (030) 88 41 22 22

**Regular publication
of the European Centre
for the Development
of Vocational Training**

This publication appears
twice a year in
Spanish, Danish, German,
Greek, English, French, Italian,
Dutch and Portuguese

Published under the responsibility of:
Ernst Piehl, Director
Corrado Politi, Deputy Director
Enrique Retuerto de la Torre,
Deputy Director

Editorial staff:

Content and structure:
Fernanda Reis
Georges Dupont

Technical production, coordination:
Bernd Möhlmann
Barbara de Souza

Translation service:
Alison Clark

Layout:
Werbeagentur
Zühlke Scholz & Partner GmbH,
Berlin

Technical Production with DTP:
Axel Hunstock, Berlin

The contributions were received on
or before 22.07.1992

The Centre was established by Regulation No 337/75 of the Council of the European Communities

The views expressed by contributors do not necessarily reflect those of the European Centre for the Development of Vocational Training

Reproduction is authorized, except for commercial purposes, provided that the source is indicated

Catalogue number:
HX-AA-92-002-EN-C

Printed in
the Federal Republic of Germany, 1993

No. 2/1992: Technical and Vocational Training

Contents

Page

Dear Readers ... 1

The future for skilled workers
Burkart Lutz ... 3

Contradictions in technical and vocational education: the outlook
Paolo Garonna ... 7

Current challenges to basic vocational training
Carl Jørgensen ... 11

Education, Training and Employment in Germany, Japan and the USA - a comparative outline of problems
Joachim Münch ... 15

Initial vocational training in France: competition, hierarchy and history
Jean-Louis Kirsch ... 20

Secondary training in Portugal
Luís Imaginário ... 27

Initial vocational education in the Netherlands: current developments
J. Frietman ... 30

Initial technical and vocational education and skill formation in Britain
David N. Ashton ... 35

Brief analysis of the types of vocational training available in Portugal
E. Marçal Grilo ... 39

The reform of vocational training in Denmark
Søren Pedersen ... 43

A School in Touch with its Environment
Lluís Sacrest i Villegas ... 45

Management training for head teachers based on business models
Renato Di Nubila ... 49

Recognition and validation of vocational skills in France
Bernard Lietard ... 54

Information sources

CEDEFOP ... 58
B: FOREM/VDAB/CIDOC/ICODOC ... 59
DK: SEL (Statens Erhvervspædagogiske Læreruddannelse) ... 60
D: BIBB (Bundesinstitut für Berufsbildung ... 62
GR: Pedagogical Institute ... 62
E: INEM (Instituto Nacional de Empleo) ... 64
F: Centre INFFO ... 65
IRL: FÁS (An Foras Áiseanna Saothair - The Training and Employment Authority) ... 67
I: ISFOL (Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori) ... 69
NL: CIBB (Centrum innovatie beroepsonderwijs bedrijfsleven) ... 70
P: SICT (Serviço de Informação Cientifica e Técnica) ... 72
UK: BACIE (British Association for Commercial and Industrial Education) ... 74

Dear Readers,

The broad spectrum covered by this title makes it necessary to specify the field covered by the various authors' contributions to this issue of CEDEFOP's Vocational Training Bulletin. Starting from the idea that the issues in technical and vocational education differ greatly depending on whether they relate to secondary or higher education, our focus will be the various forms which this type of secondary education takes in the different EEC Member States.

Drawing up a relatively complete descriptive table of the architecture of the initial vocational education "systems" containing these various streams is not enough to show the interconnections between the various components of this architecture, their respective status, their use, the operation of the system and its relationships with the labour market. These components are essential if we are to find out more about national systems, the economic, social and cultural factors which have shaped them and their impact on the construction of qualifications at the various levels.

The main types of technical and vocational education are similar in all the EEC Member States: technical education which tends to mirror the way in which the educational system operates and is therefore of a "school" type, vocational training schools which offer practical training in workshops and/or enterprise and learning by alternance. Their role and status differ within each country and from country to country.

Looking at the use of these different types of training, it is evident that training routes of the "school" type are the most widespread in some Member States, while others place more emphasis on routes involving alternance training. These differences, shaped by the cultural, economic and social history of Member States, determine the characteristics of new jobseekers which have to be related to labour markets - themselves anchored in a social context.

The question of the interface between technical and vocational education (or even initial education as a whole) and the labour market is becoming crucial at a time when the construction of Europe is making it necessary to reorganize labour markets and their European dimension. As the Commission's Memorandum on training for the 1990s points out: "..... while the establishment of a single European labour market may not be possible immediately, qualifications will have to be assessed from a European point of view in many professional fields ...."[1].

It is thus becoming very important to provide decision-makers with information which takes account of a number of points of view and places systems in their social context, highlighting the contradictions which they may contain. ALL those involved also need to be informed of innovations in the organization and operation of systems and in training practices in the various Member States so that they can analyse whether transfers are feasible and what conditions are needed for these transfers. Support must also be given for the development of transnational networks paving the way for a culture facilitating exchanges of information and experience among Member States.

1. In overall terms, the architecture of initial training systems is designed to meet economic and social needs in the short, medium and long term. The various strands are therefore supposed to produce, in a complementary way, the various types and levels of training corresponding to these needs, bearing in mind, however, that adjustments of the match between training and employment are no longer possible because of the changes which have taken place in the organization of labour and the development of the qualifications needed for work.

Continual shifts in demand place constant stress on training systems and make it necessary for them to occupy new positions without it always being possible for all of these strands to keep to a complementary approach. There is also some "competition" between strands, dictated by changes in demand, which prevents some of these strands from playing their specific role and leads to contradictions within the system itself.

■ How are these complementary links between strands built up in the various training systems in the various Member States? What are the contradictions which can be pinpointed today and what regulation mechanisms are used to manage these contradictions?

■ How can existing structures be developed so that they are better able to meet the short, medium and long term needs of the economy, of individuals and of society as a whole?

2. Technical and vocational education streams have a crucial role to play in providing young people with training and qualifications at all levels, but are seen in some countries as "paths towards failure". If this is the case, the status which society gives them must be upgraded so that they become "paths towards success" and provide genuine help with integration.

How can this upgrading operation be carried out, bearing in mind that these perceptions have their roots in cultural, social and economic history at the level of both society and individuals?

3. The relationship between central, regional and local levels is a particularly important factor in understanding the operation of training systems and the ways in which this operation is changing. This development raises important questions in the area of margins of autonomy in the management of establishments and in the formulation of training programmes, job and skill description and the recognition of diplomas. The local level provides a good forum for the State, local authorities, enterprises and training establishments to come together at a time when partnerships between these various protagonists are vital.

■ How are links nowadays being forged between these levels in the areas of planning, management and supervision of training in the various Member States? What role do the social partners play in forging these links?

■ What innovative methods of organization based on the initiative and autonomy of establishments already exist at local level making it possible to set up projects mirroring society?

4. Most Member States have made considerable efforts to improve the quality and competitiveness of these streams with respect to general education streams. This has already led to some innovations in terms of organization and teaching practices which need to be compared and contrasted.

- What are these innovations? What impact do they have on the operation of systems and on the ability of these systems to meet the expectations of enterprise and individuals?

- What contribution does research into educational science actually make to problems of training innovation and how are its results disseminated?

5. Professional experience has a crucial role to play in the social integration to which vocational training also contributes. Work is becoming less and less manual and qualifications which increasingly require a broader range of initial vocational skills and method abilities are developing and making it necessary to include components of general education in vocational training with the result that vocational training is having to work on cognitive aspects and abstract reasoning abilities. The boundaries between general education, vocational training and professional experience are becoming more flexible, with each taking ideas from one another and looking for new ways of relating to one another. However, the construction of new routes raises the problems of compartmentalization which have beset education, training and employment and requires new ways of thinking about the ways in which they operate.

- What methods are being used to integrate the theoretical and practical approaches? What methods can be used for and what are the limits on closer links between training and production, bearing in mind that a simple mechanism matching supply and demand is no longer appropriate?

- In what way can the specific role of technical and vocational education and its content now be defined?

6. The organization and implementation of technical and vocational education are based for the most part on the initiative and thus the degree of autonomy of those in charge of establishments. They also depend on a whole range of partners involved at policy-making and general administrative levels: planners at all levels, specialists in the formulation of programmes and options, educational science researchers. The key partners in the development of practices are, however, teachers and trainers, including those trainers who dispense training in a working situation as part of alternance systems.

On the one hand, full-time teachers of techniques and job skills are faced with the problem of maintaining their professional skills because of their remoteness from the production world; on the other hand, the fact that teachers' salaries are not very attractive in comparison with salaries in enterprise means that people are moving out of teaching and/or numbers coming into the profession are decreasing.

In the case of production staff who take on training duties, economic imperatives generally make it difficult for them to attend continuing training and upgrade their teaching skills.

Finally, coordination between practical training in enterprise and theoretical training in school is a key factor if alternance is to be made to work.

- What methods and resources are being used to provide continuing training which meets the particular needs of different types of trainers? In this respect, what methods can be used to provide for reciprocal exchanges between schools and enterprise?

7. The action programmes of the Commission of the European Communities, especially PETRA, while recognizing this subsidiary principle, aim to develop training systems and more equal opportunities for all people as part of the creation of a European skill bank.

The development of resources to monitor changes in qualifications, support for experimental approaches which forge closer links between training and industry and the establishment of partnerships between training institutions, enterprise, associations and teachers are essential to the development of systems in the same way as the strengthening of a culture of networks for the exchange of information and experience among EEC Member States which also introduces a European dimension.

Disseminating the results of these programmes and making use of the capital of innovation which they contain are of crucial importance.

The editorial staff

---

[1] Cf. COM (91) 397 final, Brussels, December 1991, p. 11.

The future for skilled workers

***CEDEFOP:** An analysis of the number of young people who have passed through the initial vocational training systems in Germany reveals the vast capacity of those systems to produce skilled workers. Given the growing aspirations of young people in almost every country in Europe, do you think that this capacity can be maintained?*

B. Lutz: The dual system in Germany is effective because of the very specific structure of the job markets it supplies. These are sectoral labour markets, on which jobseekers - future employees - are at the same time the skill providers. In market theory it is a very unusual situation, a factor that becomes increasingly clear and marked as the training becomes more demanding.

The particular workings and equilibrium of a sectoral labour market pose no problems where training is relatively cheap, as in the craft trades, where net training costs are nil or negative in that expenditure on training is more or less offset, or even more than paid for, by the work that apprentices do.

On the other hand, with training for industrial workers - which, after all, is the heart of the German dual system - net training costs are very high: they have been put at DM 80,000 per future skilled worker. Moreover, this expenditure, this investment, is made in an "extremely volatile product", since there can be no statutory guarantee that a former apprentice can continue to work for the same company. Employers, then, invest very heavily in a "volatile product" which is not economically profitable, i.e. sustainable in the long term, unless the market is fairly well balanced, unless future employers supply a sufficient number of young people whom they have trained, and unless there is a structural balance between training and the demand for trained workers.

Burkart Lutz

was Managing Director of the Institut für sozialwissenschaftliche Forschung in Munich from 1965 to 1990. Since 1990 has been Research Director at the same Institute.

Since the jobs done by industrial workers traditionally carry the highest status among those accessible to the "sons of the people", up to now this equilibrium has been fairly easy to achieve. Industry - and this is one of the strong points of German industry - has established a fairly unusual selection procedure to screen the "best offspring of the people" and attract them into skilled trades.

Today, after 40 years of economic expansion, prosperity and democracy, the "brightest" children go to the more academic schools and then on to university almost in the same percentage as middle class children. This has at one and the same time brought about a structured quantitative and qualitative decline in those coming forward to train as skilled workers for industry. Another reason for the decline in numbers has also been the falling birth rate.

In Germany, for some time this trend has been masked by the arrival of the last peak intakes, corresponding to the generations born in the late 1950s or early 1960s when there was a remarkable baby boom. In all probability, though, this will be the last population boom in German history. In the 1970s, due to an astute policy, many of these young people were channelled towards vocational training.

Today, the number of young people is falling sharply: academic secondary schools still have plenty of space and the public realize that it is less profitable to embark on vocational training than to go to upper secondary school and thence to university. The net financial and non-financial benefits of the pay structure achieved via the secondary education-university-employment route are still greater than those achieved via the alternative path: leaving school early, taking up an apprenticeship and becoming a skilled industrial worker. We are therefore facing what I believe will be an irreversible, long-term shortage of high-profile applicants for training as skilled shopfloor workers.

Here we see just how fragile the labour markets are as regards this type of skill: if leading industrial firms find that training is suffering from a quantitative and qualitative decline in applicants, they will probably relax their training efforts and meet their needs by taking on young people who are ready-trained. If such a practice were to take hold, the job markets would close down immediately - just as in the financial markets when a point of imbalance is reached the entire market structure collapses. And if I speak of the imminent demise of the dual system it is because today I see all the early signs of a rift between the labour markets and the training market for skilled industrial workers.

But this will not fundamentally affect the other strands of vocational training in the dual system. I am thinking in particular of the craft trades, where there is far greater elasticity (craft firms can choose to train or not to train because there is no special structure to be set up), and of the training programmes for commerce, which will probably be even more closely linked to university studies.

The sequence of practical and university education will continue to be very attractive for young people and employers. What is at risk is the "hard core", i.e. the industrial trades. This is all the more serious in that training for industrial trades has always been simultaneously the training ground for most technical employees. All master craftsmen and technicians in the Federal Republic, and even a significant percentage of engineers, began by training for a shopfloor trade.

CEDEFOP: *What then are the prevailing trends, and how do you see the future of the dual system and the structure of work?*

B. Lutz: First of all, I refuse to talk about trends. What I foresee is a break in the present pattern, but I have no idea how German industry and its education and training system will react. There are a number of possibilities or scenarios, including a certain tendency towards longer education (although I do not think this is very likely). A second scenario is one in which there is wider recourse to immigrants, giving them training and securing their loyalty by offering them contracts that bind them more closely to the employer.

There will no doubt also be an attempt to rethink the relationship between workforce training and general education, and to differentiate within the various strands of skill training. Up to now, for example, we have always lumped the metallurgical and electrical trades together. Today, a clear-cut difference is beginning to emerge: training courses for the electrical and electronic trades are being preceded by a "Realschule" type of education, and most young apprentices for skilled trades in the electrical industry have already completed their intermediate-level schooling. This is not the case with the metallurgical trades. Young people who have gone through intermediate-level schooling, i.e. 10 years' school, no longer want to go into metallurgical trades, which are seen as "low status", "not intellectually demanding", "not scientific enough". If they do go into these trades, once their training has been completed they begin studying to become an engineer. In other words, they are using apprenticeship as an intermediate stage in a longer programme of training.

The question is whether industry will manage to attract young people with a higher level of school education not only into training programmes but also into careers as skilled workers in the metallurgical industry. I do not know what adjustments will be necessary, whether things will have to be changed in terms of job categories, remuneration or working hours in this industry to make careers there more attractive for young people (even those holding a university entrance certificate). Herein lies the key question, but these are just trends: there will be a break and a need for fundamental restructuring. That is all I can say.

CEDEFOP: *But in any case we are witnessing a restructuring of working patterns. The shopfloor worker has lost his traditional status, and one often has the impression that when we talk about a skilled worker today, what we are thinking about is the skilled worker of 50 years ago. And yet their profile has changed.*

B. Lutz: I don't think so. I have always been struck by the cultural continuity of skilled shopfloor trades. There have sometimes been changes in practice, with a shift from the physical handling of materials to the supervision and control of machines, but the unity and consistency of the trade and skill remain. And the fact is that today, far more than in the past, a worker's expertise has a rational character, although that rationality is different from the analytical logic of engineers and scientists. This far more intuitive and situation-related rationalism is always part of the worker's skill, and the knowledge it entails is based on experience rather than learning.

The skilled shopfloor worker has always seen himself as different from the craftsman who produces things with his hands: he has always had a very technical vision of the processes in which he is involved, which he manages, dominates and controls.

This kind of overall vision has given him a great ability to arrive at highly reliable conclusions very quickly in the light of disparate, inadequate or incomplete data. This rationality, this special approach, has been an integral part of the worker's culture, but it is growing in importance as mechanization and automation do away with the need for the direct handling of tools or workpieces. The big question as to workers' skills in the future is precisely how to retain this factor now that it is threatened by the introduction of information technology as an interface. That is what we are trying to define, albeit provisionally, by bringing together knowledge that has been taught and knowledge acquired through experience. The essence of the worker's skill is experience-acquired knowledge, and it has not been achieved by applying the kind of scientific knowledge that might be taught at school. If you talk to workers today about a very modern piece of equipment (NC machines, for example), they would explain that to do a good job with this machine you need a clear idea of what is going on inside, for example to sense the head of the milling machine and feel how it moves through the workpiece. They touch the machine, they listen to it, they have a whole range of sensors which bring this vision to life. One of the big questions facing us today is to know how to re-create this same vision in a highly automated and interfaced situation.

The important thing is that this central component - now more central than ever before - of a skilled worker's expertise cannot be learned at school. It cannot be taught; it has to be created and re-created through practice in doing the job. ALL that training or education can do is to support and encourage this process, but they cannot be a substitute. I would go so far as saying that even the engineering trades would be at risk if their vocational basis - traditional in Germany - were to disappear and if there were to be a move towards putting industrial practice on a more scientific basis.

CEDEFOP: *Even so, the sum of knowledge needed to become a skilled worker today is probably far closer to what, 50 years ago, used to be the domain of the technician. If this is so, has this development been taken into account in training paths?*

B. Lutz: There has certainly been a process of change in Germany, a slow evolution which has been speeded up recently with the reform of the metallurgical and electrical trades. It is clear that the knowledge and expertise content of workers' training has increased, but that there has been no basic change in the very structure of this skill. Otherwise, workers would be "semi-engineers". The essential component of workers' training in Germany is in fact training in how to accumulate knowledge through experience, and this calls for teaching methods that differ fundamentally from those used at school.

At school, the main aim is to make pupils assimilate knowledge and, ultimately, it is the teacher who carries the responsibility for success. And yet one of the strengths of the apprenticeship system in Germany, one of the reasons why it has such a low failure rate (compared with the very high failure rate in similar school-based training programmes in other countries), is that right from the start apprenticeship has a kind of in-built conditioning, the responsibility for success being placed firmly on the trainee. From the word go, trainees learn that they must learn. No one tells them in so many words, but the whole climate of the apprenticeship centre brings it home to them that their success depends on them.

Today the key problem is that the social conditions allowing for this conditioning and transfer of responsibility to the apprentice, and also the social conditions providing the impetus to acquire experience, are disappearing and, as they disappear, may well take with them the component parts of the workers' apprenticeship and expertise. Faced with competition and the lure of the traditional secondary school/ university training route, apprenticeship is no longer so attractive.

The main question is whether Germany and the other industrialized countries will, in a completely different social context, succeed in recreating the conditions for learning a trade and for the gradual acquisition of job skills, on a par with what used to be the industrial training of workers for the "brightest children of the people". When the son of an agricultural worker, a labourer or a semi-skilled worker in a large firm had ambition, his best chance was to join the apprenticeship centre in his father's place of employment in order to become a skilled worker. And one of the reasons for the relative success of German industry compared with French industry, which started off in a better position, is that it was more successful in attracting the "brightest sons of the people". In France, it was the army, the civil service and teaching that exercised the greater attraction. As a result, the recruitment of primary teachers in France - which was both very elitist and very democratic - was directed at the same "target group" as was the recruitment of skilled workers in Germany, with a view to producing master craftsmen, foremen, head foremen, technicians and even engineers.

Today we have created far better structures of social equality and equality of opportunity superior than those of the 19th century, but the key question for the future of European industry is whether we will be able to recreate the training schemes and vocational careers equivalent to what we had in the past. It may be that a university education will be needed, but I would not rule out a new dual system which combines part of a worker's training and part of an engineer's training to achieve something new, a kind of "industrial elite", perhaps less numerous than in the past but whose role in the economy would be crucial to economic wellbeing, and with completely different promotion and career pathways.

The social division of labour between the engineer and the skilled worker can no longer be justified. It was justified in a class-based society, but happily this divide has largely disappeared. There will have to be a new approach to the structuring of industrial trades and the division of labour, where structuring will undoubtedly be both horizontal and vertical, vocational and hierarchical, and very different from what has existed until now.

My main concern is that, in order to move ahead in this direction, a timescale vision spanning at least one generation will be required. In other words, we must look much farther than the perspectives and horizons to which industrialists and the body politic have been accustomed. When you talk to German industrialists today, they explain that they have "plenty of skilled workers". When you reply "yes, that is true, because in the mid-70s a political decision was taken which gave you almost a surplus. But take a closer look and you will see that this is the last generation of skilled workers. They may be young today, but every year they are one year older and in 25 years they will probably have left active employment. You need to concern yourselves today about a new intake, because the way things happened in the past will not happen again, the 'pipelines' are empty. Just look at your apprenticeship centres." To which they reply, "Yes, you're right, the pipeline is empty, but in 25 years' time, the Japanese etc. etc..., and in any case, I'll no longer be working."

Therein lies the real problem: as far as industrial skills are concerned, we are in an impasse.

***CEDEFOP:** How do you currently see the question of the governability of education and training systems?*

B. Lutz: Therein lies a major problem, if one accepts that the education and training system is not merely a sub-contracting supplier to the economy. The highly reassuring vision of the economy held by educators, which led them to say "we are subcontractors, where the demand leads we must follow, and our responsibility is to keep abreast of current requirements" is no longer tenable, not only because it is difficult to grasp what these "current requirements" are, but also because this is a narrow vision of the true role of education and training.

Nowadays, we know (and CEDEFOP has done much to publicize the discoveries) that the education and training system has a very constructive input to the structure of employment, and that the needs of the economy reflect not only internal processes of growth, mechanization, automation, etc., but also the existing labour supply and former manpower skill structures.

At the same time, there is an interaction in another direction, because the behaviour of pupils and their families, the training paths they choose and those they reject, reflect a perception of the structure of jobs and the opportunities created by the possession of a diploma. Parents and pupils, albeit belatedly and with some uncertainty due to the lack of information, react rationally to the opportunities for making use of their training in the job hierarchy. If there are marked differences in pay scales based on the duration of school education, it is clear that everyone will try to have as much schooling as possible. That is only logical.

You can, then, legitimately speak of a two-way reaction. The education and training system, through the structure of the skills and aspirations of the young people whom it places on the job market, is forcing employers to change. In other words, educational policy is, with some delay, shaping the structure of jobs. But the job structure creates a social demand for education which is not something abstract (it is a reflection of the structures of employment). Yet this interaction takes place via lengthy mechanisms: reactions are not instantaneous but delayed, though by how much is not very clear, since time is a difficult factor to pin down in economic and social sciences.

The timescales involved will probably be longer than a generation, i.e. over 25 or 30 years. But the mechanisms are already operating today and long-term forces have begun: at present there is nobody, either in the private economy (not even industrialists with vision) or in public policy responsible for the education or training system, able to think and act within such timeframes. There is, therefore, a very serious problem of governability.

In what I perceive to be a break with the past, where processes that have functioned for a century no longer do so, a number of mechanisms for the distribution and allocation of manpower will no longer reflect real life. At that point, the problem of non-governability, the failure to control dynamic changes in both job structures and the education and training system, will become acute.

CEDEFOP: *We are all aware of the difficulties facing those responsible for planning education and training, given the lack of reliable data. How can this problem be solved?*

B. Lutz: I believe that what we lack are the basic data to make sound forecasts, and what is even more amazing is that nobody asks us for them. If there were a demand, a real need for forecasting from political leaders, the political apparatus or the captains of industry, the research would have the resources it needs.

But the resources are not there, because the decision-makers are fobbed off with reassuring but dubious "gimmicks".

Political leaders think in terms of four years, and the industrial world is proud of the fact that it works on the basis of capital investment payback periods of eight to twelve years. Anything beyond twelve years is way into the future, like the famous "factory of the future". And yet half the people who will man that factory of the future are already in place today and the other 50% will be recruited, trained, installed and socialized by those already there. If one thinks in terms of manpower numbers, job structures and social manpower structures, then 20 years is just around the corner, not some distant future which should not unduly concern us.

So it is this inability to take the longer-term view that is the key factor in the non-governability of the systems, and I foresee dramatic upheavals which may cost us very dear.

CEDEFOP: *As a result of the work you have done in various countries, particularly France, you can obviously make comparisons of specific questions. Are the problems you are now encountering in Germany completely different from those facing France?*

B. Lutz: Ever since the first comparative studies of France and Germany I have always taken the view that the best and the most productive working assumption was to say that France was one generation ahead of Germany, that the two were basically following the same path albeit with some differences.

All things considered, the fundamental problems are the same in France as in Germany.

To some extent, what is happening today in Germany is very similar to what happened in France after the Second World War. You have to remember that, at the end of the war, France had a very good system of vocational training, and was setting up a system which, in many ways, was much more modern and effective than the German system at the time (even though its intake capacity was limited). So what happened in France in the 1950s - the sudden decline of an entire system of highly innovative vocational training, with people volontarily opting for vocational training in the post-war years - largely foreshadowed what is now happening in Germany. And it would be wrong to criticize the attempts now being made in France to regraft the teaching of vocational skills onto its education system, dominated as it is by the teaching of general academic subjects. I think it would be in Germany's interests to look very closely at what is now happening in France with the *Brevet technique supérieur* (technical diploma). That really should be a lesson for Germany.

In practice, things are very complicated: how do you reconcile an open-ended teaching system, designed to appeal to the entire social spectrum, with the acquisition of vocational expertise? This is a question to which nobody can give a definitive answer.

We are now moving very much into a period of trial and error, where even the setbacks of others may be extremely salutary for everyone.

CEDEFOP: *What can Europe do?*

B. Lutz: Above all, Europe can expand its capability for comparative analysis of these experiences, their success and failure. Europe must be able to manage diversity and resist any attempts, no matter how appealing, to find a miracle cure that can be imposed on everybody.

It will be far harder than we think to emerge from the present crisis, and everything that adds to the capacity to observe processes and assess current experiments will be extremely helpful.

Contradictions in technical and vocational education: the outlook

Technical and vocational education is being affected in every way by current changes in industrial systems and social structures. The article discusses certain basic questions posed by these changes, particularly the relationship with the school system, the interaction between initial training and the training of adults, the assumed conflict between technical culture and human and social sciences. It highlights the ways in which innovation in technical and vocational training may contribute towards the solution of the major issues of the end of the 20th century: the campaign against exclusion and the restoration of social cohesion on a new basis.

The fascination and ambiguity of a borderline area

On the eve of the Single European Market and with the prospect of major international economic policy changes at the end of the century, today technical and vocational education is going through a period of substantial innovation and reform in which its effectiveness, operating methods and role are under challenge.

This evolution reflects the great changes in social and industrial structures now taking place and expected in the future. There is a deep-rooted, widespread belief that the management and development of human resources are among the most important fields for action in attempts to remove the structural obstacles to development and employment, and that technical and vocational education has a fundamental role to play in this context.

Paolo Garonna

Assistant - Director for Education, Work, Employment and Social Affairs, Organization for Economic and Social Development, Paris.

It is, then, invaluable to embark on systematic in-depth monitoring and evaluation of existing processes, both national and international. We need to have reliable, comparable, statistical data, to prepare rigorous analytical frameworks and to develop methods of evaluation. In this task, the stimulus and contribution of international organizations such as CEDEFOP, OECD and UNESCO are of special importance in identifying innovations and supporting the restructuring that is already taking place, and in securing the participation of all parties involved in and committed to these processes: the political and administrative authorities, vocational training practitioners, the labour market, employers, the social partners and the world of research.

In this article the intention is to take a complementary and independent look at this method of evaluation. The aim is not to review or summarize the state of the art, but merely to ask a few questions that may serve as a guideline (or a further guideline) in this phase of transformation. We believe that what is needed is not just to find effective short-term solutions but also to prepare the terrain for thinking and action with a view to supporting major longer-term changes. The unmistakable signs of those changes are emerging, but their maturation through adjustment and experimentation will take far longer.

The fascination, but also the ambiguity, of studying technical and vocational education lies in the fact that it is a borderline subject. It overlaps both the educational system and the vocational training system, initial training and lifelong or continuing training, basic training and specialist training. Much of the contradiction, superimposition and inconsistency inherent in the present system of regulating technical and vocational training and its method of operation in fact arise because it serves as a crucial and delicate "linchpin". At the same time, this interface position offers a rich vein of opportunities for debate and experimentation.

Technical and vocational education and the educational system

In most countries, technical and vocational education, particularly at the secondary level of education, often overlaps both the educational system and vocational training.

The reason for this is twofold: 1) in planning for skill-generating itineraries, the "initial" levels of training need to start early enough to ensure that young people acquire usable specialist skills and can if they wish launch out on the labour market at an early stage; 2) for the same reasons, there are plans to include technical and vocational streams and options in the educational system that will support or complement the normal, conventional or "comprehensive" streams. The historical origin of this duality or multiplicity of channels is that in the past, education used to be somewhat elitist, being directed towards a small group of citizens called upon - and it might be said legitimized - to perform the role of a governing class. Technical and vocational education, on the other hand, developed within the educational system as an instrument of training directed towards the working classes, in other words those who had no place in mainstream education, or at least did not stay there long. With the expansion of mass education even to higher levels of education, and with the upgrading and spread of a technical and vocational culture as a corollary of industrial culture, the appearance of technical and vocational education in so many places in the educational and training systems has become a source of growing contradiction.

Technical and vocational specialization, and the early options that it entails, is seen as being in growing conflict with the need to provide a sound, broad basic education so that people can go on to acquire the various specialist skills they will need in the cycle of their working lives. Furthermore, the lack of a technical or vocational culture in mainstream education generates the familiar risks of abstraction, isolation from the working world and an inability to provide the skills needed on the labour market.

Interesting research is being done to promote transfers between the various streams of education and to make it possible for options to be reversed, or at least to minimize the costs. Close cooperation, coordination and integration between training and technical and vocational education are by now a known objective of policies, sparking off intensive discussion and critical comparison. Even so, the general intervention trends and models still seem uncertain and ambiguous in the light of "best practice evaluation".

Views fluctuate between two extremes, and could be summed up as follows: a) there are people who feel that technical and vocational education should not "merely serve" the labour market but, on the contrary, should contribute towards training the "citizen", transmitting not just useful knowledge and abilities that can be put to good use on the labour market but also the basic "values" of an industrial culture, the ability to live with others in society and human solidarity; b) there are others who see technical and vocational education as an investment in human capital, in other words a mechanism for the transmission and acquisition of income-generating skills that can be put to good use on the market.

The utilitarian and positivist assumptions underlying these two opposing views, however irreconcilable they may seem, have several things in common with those ideologies launched in the 19th century which argued that there is a basic conflict between the market and solidarity, between the logic of competition and the rules of cohabitation and social cohesion. These two extreme positions do not help in the search for adequate forms of coordination and integration between education and training, and they are amply contradicted both by the demand for skills and by social change. The labour market needs broad skills and the basic education and culture permitting its human capital investment to keep pace with technological and organizational change. For its part, society faces a steadily growing demand for integration into the workforce community, what is known as active society, and for citizenship, which can be achieved only through full participation in the life of the working world and the labour market. In practice, integration with the system is characteristic of those systems that have been taken as a model of effectiveness for technical and vocational education, i.e. the "dual" model along German lines and the Swedish type of integrated, comprehensive school. Both these ideal types, albeit very different and in some ways opposite from each other, combine school education with technical-vocational education.

It would be an illusion, however, to think that resolving the contradiction between education and training and choosing a model of integration is just a matter of institutional engineering or abstract political choices. In reality, the breakdown between technical and vocational education and general education, as for example it is found in the German and Swedish "models" and not adequately found elsewhere, seems to be closely bound up with the types of organization and methods of operation of the labour market. The dual models of alternance or apprenticeship are fully operational only in what are known as "occupational" labour markets, in other words those structured according to institutionalized, recognizable skills and/or trades, where levels of mobility and turnover can be relatively high and where there is a considerable level of public regulation or contractual self-regulation of conditions of work and qualifications. This is clearly shown in the case of countries with neo-corporative structures.

It is hardly surprising, then, that the crisis on occupational markets, which has been brought about by broadening competition and technical progress, has inevitably eroded the effectiveness of technical and vocational education. This is why, in certain countries and sectors, technical and vocational education is still linked with "old" trades and old-fashioned industrial skills which are rapidly becoming obsolescent.

The Swedish integrated school model, on the other hand, seems to be more compatible with systems where internal labour markets are highly developed. Basic or

Manfred Vollmer

more general technical or vocational training is still the responsibility of the school system, whereas more specific job-related training is left to employers, who administer it according to the logic of domestic labour markets and careers. Training in and for the labour market becomes one of a set of active manpower policies directed towards promoting effective intermediation between the demand for and supply of work and jobseeking, and is therefore directed mainly towards the long-term unemployed, both youngsters and adults. As is apparent, the Swedish model of integrated schooling offers individual employers (essentially large employers) broader autonomy in their management of training processes in the light of requirements for the structuring of internal careers and the way those companies organize their own work. Nevertheless, it should be pointed out that the effectiveness of the mechanism depends on substantial investment in technical and vocational training in the labour market under what Calmfors has called an "accommodating labour policy". In Sweden, for example, there are active labour policies consisting mainly of training measures, and they have involved a fairly large proportion of the unemployed, reaching peaks of 60% and over. Without complementary compensation in terms of labour policy, there would be a risk of the training content and method in technical and vocational education integrated into the school system diverging too far from what is needed by employers as a whole, with the all too familiar negative effects: inadequacy of skills and mismatches.

The links between models for the regulation of technical and vocational training and labour market structures show how closely interdependent is the evolution of both. The current restructuring in systems for the management of the labour market, therefore, has profound repercussions on integration between the school and technical and vocational education.

Initial training and adults: a connection that calls for clarification

Technical and vocational education is generally part of what is known as the initial training system. The acquisition of specific technical and occupational expertise is concentrated in the initial phases of the training process; the purpose of subsequent phases of recurring or continuing training is generally to update or develop these forms of expertise in line with changes in technology and the labour market and to help people cope with the threat of obsolescence and loss of skills. This approach is consistent with the definition of specific technical and vocational career routes, whose foundations are laid by relatively standardized education and curricula that can be recognized and certified.

This functional breakdown of roles between initial and continuing training is fairly consolidated, but is often in contradiction with certain emerging trends on the labour market. The appearance of new vocational skills and the demand for higher levels of skill, growing inter-occupational mobility, the lengthening and diversification of the cycle of working life: these and other factors mean that excessive separation between technical and vocational career streams can be regarded as an obstacle, and cause the rigidity of structures to be viewed with concern. There is also a growing demand for technical and vocational education for adults, or at least for people already on the labour market. To restrict job-related education to the "initial" phase might well impoverish the content and prospects of continuing training measures. In practice, this is where the distinction and separation between "initial" training aimed exclusively at young people and "continuing" training devoted to adults are being disputed. In particular, the close or exclusive link between "initial" training and the training of young people seems to be disappearing. In specific technical and vocational itineraries, for example, why should there not be instances of the "initial" training of adults? And why could this training not be combined in some cases with the technical and vocational training of young people? To bring young people and adults together might have beneficial effects on pupils' motivation through the interaction of different forms of expertise and experience, and it might create a less scholastic and more job-related climate in school or parascholastic education. With new trends in the organization of labour and in the restructuring of the production processes, together with changing attitudes in the supply of labour during the life cycle (especially among skilled workers and women), people are questioning why adults should be excluded from technical and vocational type of initial training. The demand for flexibility in curriculum planning, moreover, creates tension in rigid initial training systems where itineraries are pre-defined and structures are super-regulated.

A feature of the industrial societies of the past (and to a certain extent of the present as well) was the rigid relationship between age (and also between sex and social position) and the learning process. In modern teaching, the flexibility required by social change, the market and technologies shows that technical and vocational education can be effective regardless of age and other personal characteristics. Certain 40-year-olds who have been made redundant by restructuring could well be "initiated" in various vocational skills rather than being simply updated, retrained or, even worse, relegated to the sidelines.

Technical culture and human sciences

The relationship between technical and vocational culture and human and social sciences is one of the main sources of contradiction and tension in the approach to and practice of technical and vocational education. On the one hand, mass education has brought growing numbers of pupils into the arts and social science streams of education, attracted by the greater flexibility and the (presumed) readier accessibility of the curricula there. On the other hand, an analysis of the causes and implications of mismatches on the labour market focuses attention on those technical and vocational streams regarded as closest to the working world and its requirements.

These tendencies are bringing about a twofold risk: the deterioration of technical and vocational education and of general education. The latter is increasingly exposed to the difficulties and delays entailed in having to cope with demands that are changing in quantity and quality. As a result, human sciences acquire a "soft" connotation and an air of "elitism", so that in the end they are distanced from technical and scientific culture or even move towards the academic - in other words, the inward-looking reproduction of the teaching body. On the other hand technical education risks losing cultural depth, being reduced to the role of launching people on fairly low-skilled work.

The signals being issued by the labour market and the restructuring of production systems are that there are substantial opportunities for overcoming the "ideological" contrasts between technical and vocational culture and general culture, and that there is greater uniformity between theoretical and practical knowledge. Having to assume responsibility for planning as well as for performance even at relatively low levels in the hierarchy, the "forward management" of human resources and production processes, the move away from the fragmentation of jobs in the post-Taylorist context, the rapid adjustment to mobility, turnover and change in incentive systems: all these factors encourage a reassessment of general abilities in the field of communications personal relationships and the ability to conceptualize and make a critical analysis. A sophisticated analysis of the connections and opportunities arising from the background and contextual data, the ability to cope with complexity and ambiguity, going beyond the conventional models of scientific/laboratory methods borrowed from physical sciences are additional factors in the revival of the importance of social and human sciences, the lesson being that these elements should have their proper place in technical and vocational curricula.

There is also a profound change in the method of doing human and social sciences. Eloquent testimony to this is the full use of quantitative methods, recourse (with the proper caution) to the experimental method, the move towards problem solving and the removal of barriers between disciplines, a better balance between theoretical analysis and application, and the technical and scientific analysis of institutions, culture, intangible capital and innovation. This evolution is bringing the methods of social sciences to technological and scientific disciplines, paving the way for a radical review of technical and vocational curricula and for a closer integration of technical and vocational integration into the education system and the vocational training system.

Screening, careers and social cohesion

The acquisition and transfer of specific technical and vocational knowledge are only two of the tasks of technical and vocational education, however important. Its function for example, is selection and serving as a filter for the creation and revitalization of the governing class, the construction and maintenance of consensus as to the organization of society and work and its stratification, the evolution of individual and collective mentalities, custom and ethics. These are the functions of technical and vocational education that are being challenged when there is a debate on such long-established dichotomies as those we have discussed. The other functions also evoke some of the major issues that are of such concern at the end of our century: the 30 million unemployed in the OECD area, the ever more evident and worrying erosion in the basis of social cohesion that used to be secured by the welfare state and its pillars: social security, health and education.

What is the position of technical and vocational education faced with these major questions? With the persistence (hysteresis) of employment and the demand from new social forces (such as older people and women) for participation in the labour market, integration in the labour market is assuming altogether new aspects, even though this is the traditional objective of technical and vocational education. What we need now is not just to promote access to any job - a hard enough task in itself. We need to guarantee a person's integration into "working society", and therefore to do away with social exclusion. This task has important implications. It implies: a) aiming at the definition and socio-institutional construction of career paths within companies and between companies and sectors; b) helping to reform systems of socio-occupational representation and organization; c) integrating the technical and vocational training system into labour market management mechanisms and into active policies for integration and the promotion of new employment; d) adapting the provision of training in a flexible manner to the demand from specific target groups (young people struggling to find a foothold in the working world, old people, women, immigrants) and to various local and social contexts (urban centres and suburbs, rural areas, frontier areas, etc). It should be realised that current changes in training plans reflect not only the various skills required by changes in specific jobs but also (and perhaps above all) major changes in social structure, vocational hierarchies and status relationships. If effective technical and vocational training paths can be designed, they may help to restore the effectiveness of those functions of selectivity and guidance that in some cases seem to have been compromised by mass education. Education would then become a *rite de passage* for the young person or adult on the path towards acquiring vocational skills, and it would help to cement cohesion and discipline and rationalize the forms of competition for social mobility and for progress on the labour market.

The credibility and intrinsic value of the training itinerary will have to reflect the intrinsic value of the knowledge being transferred. It must, therefore, be founded on new forms of standardization, transparency, recognizability and certifiability of the acquisition of technical and vocational knowledge. It would be an illusion to try to re-introduce status areas inherited from the hierarchical structures of the past which were swept away when civil society opened out to systematic competition and technological progress.

To have no ambition to achieve this end would be to fall far short of the challenges at stake. The parameters for judging individual and overall effectiveness in any attempt at reform and any innovation and improvement are to be sought in the major issues in the campaign against exclusion and in the re-establishment of social cohesion on new basis.

References:

Ryan P., Garonna P. and Edwards R. (edited by), The Problem of Youth. The Problem of Youth Employment and Training in Advanced Economies, Macmillan, London 1992.

Current challenges to basic vocational training

The aim of this article is to demonstrate that the current disparity between the skills of the workforce and the skills demanded by industry and the current high level of unemployment are not the result of a capricious fate, nor are they unexpected or surprising.

The labour market is under pressure from major changes in the structure of industry. These changes have been apparent for a number of years. Renewed growth in employment cannot be brought about in the goods-producing industries (manufacturing sector), which in the past had been the dynamo behind employment in western European societies over a long period.

The article does not provide any answers as to precisely where the future growth in employment will come, but identifies trends which merit attention.

It might be a useful task for CEDEFOP and for European cooperation on vocational training to conduct more in-depth studies in this area.

Historical background

Initial vocational training has been based without interruption from the late Middle Ages to the present on the principle of the apprenticeship. Rules on the mutual rights and duties of apprentices and master craftsmen are contained in guild regulations from before 1500.

Carl Jørgensen

former Director of CEDEFOP, Berlin

Many years of practical training in recognized workshops ensured that thorough instruction was given in all the various disciplines of the trade and that effective socialization took place among the practitioners of the trade.

The apprenticeship system meant a restriction on the number of people trained, but ensured significant security of employment and social security for the trainees.

The apprenticeship provided an effective form of training in earlier centuries, where technological development was slower. However, in this century the principle of the apprenticeship has faced a rising challenge from technological development and the increased internationalization of trade and industry.

The Apprentices Act of 1889 imposed a duty on the master craftsman in some trades to provide modest school education as a supplement to the training at the place of apprenticeship. A law of 1921 and later legislation increased the requirement for school teaching both in more general subjects and in theoretical and practical subjects geared towards the trade in which the apprentice was being trained. Supervision of the individual places of apprenticeship, special rules for the approval of places of apprenticeship etc. were introduced during the same period.

Technological development

In recent decades the labour market has undergone rapid and extensive changes, resulting in significant difficulties with respect to adjustment between the requirements of the labour market and the actual specialist knowledge and capability of the workforce. A number of traditional trades have disappeared, new materials and new production processes have been introduced, former boundaries between trades have been broken down, and the rationalization and automation of manufacturing processes are tending to divide the labour market into a group concerned with repair and maintenance based on traditional trades and a group of operators whose work is generally remote from traditional trades and who must chiefly meet the requirements of care and flexibility.

One of the major consequences of information technology is the possibility of a constant rise in productivity through the extensive automation of production processes, both where many identical products are manufactured and where the need is to manufacture various products in small quantities.

The consequence is that the manufacturing sector even in a period of rising demand only has a modest need for more employees, and that the local employment effect in the longer term even of large, new production plants is surprisingly small.

Development in the training system

The reaction of the training system to this challenge from the labour market has followed three main lines, providing more young people after basic schooling with continued general theoretical education (university entrance certificate), supplementing the vocational practical training at the place of apprenticeship with increased technical and general education in school and reducing the number of trades in which instruction is given.

Increased access to general, theoretical education reflects the wish for a rise in the general level of education in society. This has also led to a rise in access to further education, not least including university education. In a number of these educational programmes more fully trained people are being produced than are needed within the sector concerned. A rising number find employment outside their professions in private organizations and firms.

The purpose of the longer period of instruction in school with a consequently shorter period of work placement at the place of apprenticeship is to ensure that those who are educated are up to date with the latest technological developments and that through the more general subjects they acquire greater awareness of the world around them and can keep up at the workplace in an increasingly internationalized industry.

The reduction in the number of trades in which instruction is given - from around 300 to less than 100 - has primarily taken place through more specialized subjects being included as elements in wider subject areas. Broader skills areas have been created and will contribute towards increasing flexibility in the labour market. In order to continue to ensure good practical instruction, wider access has been given to combined training agreements covering several places of apprenticeship.

The situation of young people

Like other countries in Europe, Denmark experienced a baby boom in the sixties. Since the mid-eighties the supply of young people has been declining again. The lowest supply will occur in the second half of the nineties, after which a slight rise will occur.

Despite the sharp drop in the number of young people in recent years, an appreciable number still fail to gain a foothold in the labour market or in further education after lower secondary school. A survey carried out in the municipality of Copenhagen in 1991 revealed that more than a third of young people who had left school after the non-compulsory tenth year in the primary and lower secondary school (folkeskole) were unemployed eighteen months later, equivalent to 15% - 20% of the annual intake.

Unemployment in Danish society now stands at around 11% of the workforce. This background, together with the difficulties experienced by the young in obtaining employment engenders an attitude of passiveness and resignation in some young people. Regardless of the lack of employment, they can maintain a modest lifestyle by virtue of various forms of financial support. If they stay in this situation for just a few years, experience shows that their chances of a normal existence later are slim.

Franz E. Moller/Suddeutscher Verlag

A number of courses and temporary employment schemes have been tried, but without decisively favourable results. An extensive, coordinated collection of amendments to existing rules is being worked on at present in the Folketing, the Danish Parliament, in order to avert this trend.

A complete adjustment and coordination of the financial support schemes is being worked on in order to create a clear financial incentive to choose training or employment rather than the passive receipt of assistance, and work is also in hand on opening up more training places at all levels. Provision is being made for young people, while retaining public assistance, to be given employment in the public or private sector with special service duties such as child-minding, helping the elderly, garden and park maintenance, assistance with club work and cultural provisions - work which generally promotes the quality of life of citizens but does not distort the normal labour market.

Change in the structure of industry

History never repeats itself, but it may be appropriate to consider and learn from earlier developments in society.

In the second half of the nineteenth century, conditions of employment and living conditions in traditional agriculture in Denmark became increasingly poor. Industry suffered from poor profitability and faced the need to change over to different forms of operation which offered considerably better sale prospects and higher profitability. The expulsion of agricultural workers and their families led to considerable migration from the country to the towns and distinct proletarization of the population group affected, characterized by low wages, unemployment and poor housing. These circumstances were slowly brought to a halt as the manufacturing sector grew and was able to offer both employment and rising wages. The more well-balanced and richer society was able later to build up a welfare society with a good social security network. This development was not possible without increased private and public consumption on increasingly large markets.

The analysis that follows is based on the assumption that national and international competition will continue to make it necessary for manufacturing firms to exploit opportunities for automation and thus increased productivity, and that even a strong upsurge in demand for goods will not therefore noticeably increase the demand for labour. The existing high level of unemployment cannot be expected to be reduced through increased employment in the manufacturing sector.

We will continue to witness the expulsion of labour from the manufacturing sector in the future. The consequences for those who are expelled - as was the case earlier for those expelled from agriculture - will be fading employment opportunities and the need for a great willingness to readjust.

Just as those expelled from agriculture could only be picked up by increased employment in the growing manufacturing sector after a transitional period, none of the other sectors of the labour market is able to absorb those who are now being expelled from the manufacturing sector.

Just as those who were expelled from the agricultural industry at the time represented the groups who were weak economically and in relation to training, expulsion from the manufacturing sector today primarily affects those with little education and training, particularly women with little education and training.

Proletarization of those who are now being expelled, in line with earlier historical events, should and will not take place, but the high level of unemployment and the rising number of long-term unemployed in this transitional phase represents a large and serious human, social and socio-economic problem.

The lack of adaptation between the demand from the job market for labour and the supply of labour is thus not a phenomenon of the economic climate but is due to changes in the structure of industry. The training system cannot solve this structural problem, but if particular lines of development can be pointed to with some degree of probability, the training system can also assist in shortening the painful transitional period, both through a change of attitude to reduce resistance to new areas of employment among those seeking work and in society at large and by introducing new forward-looking elements into existing training schemes.

amw/Süddeutscher Verlag

A review which has just been completed of the three-year theoretical youth training scheme in the technical schools (Higher Commercial Certificate) has meant further strengthening of international elements in a number of disciplines, and some new disciplines have also been introduced, such as "cultural understanding" in relation to foreign cultures, "environment" with respect to the assessment of the environmental impact of a particular type of production and constant updating of the level of environmental information in a firm - both parts reflect the acknowledgment of new areas of employment by the training system.

New employment opportunities

It was pointed out many years ago that the industrial world would in future have to prepare itself for major changes on the labour market, as a result of factors such as the development of information technology and the growth of industry in countries which became industrialized at a late stage. Our present structural problems did not come without warning, but are nevertheless often considered to be surprising - perhaps because it is difficult to intervene before the problems are felt to be so serious by so many people that intervention is unavoidable.

The service sector was designated to be the dynamo behind employment in the process of re-adjustment, but has not yet been able to live up to this role, despite increased employment in certain areas such as the financial sector, the computer sector and the tourism sector.

However, there is no better way of achieving greater employment today than in the service sector. We are in a transitional period where the manufacturing sector will employ fewer and fewer people and where the service sector will be expanded. The expansion of this sector cannot take place primarily through the government. Both socio-political and socio-economic factors rule this out.

An expansion of the traditional term "the service sector" is to be anticipated as a result of increasing popular pressure, for example for better cleaning and greater public safety, for a more open and more generally understandable exchange of information and spread of knowledge, for high-quality and varied cultural and leisure facilities and for good provisions for the disabled and the elderly. Many of these tasks are at present dealt with by the government and as a result of severe deficits in public finances there are likely to be significant and necessary reductions in grants.

Gradually, as practical, high-quality answers to problems are provided by the private sector, new markets with a significant effect on employment will emerge, both nationally and internationally. This development will depend on a great deal of re-thinking and close cooperation between the public and private sectors.

Challenges to the training system

The outlined development will present the training system and vocational training programmes in particular with great and challenging tasks. It is not possible to identify specific work tasks and therefore defined training requirements in a great many fields in the future, expanded service sector.

However, this very uncertainty demands a thorough re-think on the development of the training system, both in order to make rapid follow-up and flexibility possible and to avoid wrong developments which can make adaptation in the longer term even more difficult.

A few problems are discussed in the following, concluding sections.

It is logical and correct to work towards raising the general level of training, both in view of the expanded service sector and because new specifically targeted training schemes can only be introduced to a limited extent. Good youth training can give the individual greater personal security and self-esteem and therefore a greater willingness to re-adjust.

It is desirable therefore that as many young people as possible undergo youth training, that the general education elements are strengthened in the initial vocational training schemes and that greater access is given to the theoretical, three-year vocational training schemes at commercial school and technical school to supplement and compete with general, theoretical youth training (university entrance certificate).

However, these aspects must not lead to the incorrect conclusion that all young people are the same and are equally prepared to accept and benefit from youth training with a theoretical emphasis.

It is not sensible if requirements for theoretical learning in school instruction in the initial vocational training schemes cause a greater number of young people to give up and abandon the training scheme. Young people must be challenged both vocationally and generally, but while respecting their different attitudes and abilities. Flexibility with regard to the extent of theoretical requirements is needed in these training schemes.

Nor is it sensible if the theoretical, general youth training becomes a depository rather than serious training, because too many are forced into it due to status considerations.

The development within initial vocational training towards a broader range of skills with opportunities for specialization may be regarded as being appropriate. The professional knowledge and ability and the workplace experience which these training schemes provide will continue to be valuable for the individual and necessary for society. The introduction of elements to promote for example understanding of the environment, respect for the fulfilment of quality standards and a general service attitude can make the training schemes more forward-looking.

Attempts should be made to introduce new initial vocational training programmes within the service sector into the technical schools, for example in the area of social services and health, in order to create an environment which is broader in terms of attitude and occupation in these schools.

The Danish government has endeavoured in recent years to give the individual vocational schools and a number of new regional councils representing the local parties in the labour market increased opportunities to introduce new elements into instruction and to implement completely new training schemes depending on developments in local industry.

These efforts must be welcomed, since such decentralization of the right and duty of initiative will presumably lead to greater sensitivity towards new training requirements. The efforts apply both to the initial vocational training schemes and to the vocational continuing training schemes.

Trainees have for hundreds of years sought solidarity and identity with colleagues in their trade as a natural and deep-rooted tradition. The protection and strength which belonging to the trade gave is now in decline. This development means that the individual increasingly now has to achieve identity and practical support at the workplace and among colleagues in the trade. This change is obviously not devoid of problems, either for the individual or for the organizations of the labour market.

An appropriate consequence, on the other hand, is greater flexibility and emancipation in the relationship between formal training and employment. The consequences of the structural change will become considerably less painful if there is a willingness, on the part of both employers and employees, to regard personal skills as being more decisive than the original, formal training.

Education, Training and Employment in Germany, Japan and the USA - a comparative outline of problems

The state of general education as a prerequisite for vocational training and the trends in university attendance are analyzed in a comparative study of selected aspects in Germany, Japan and the USA. Discrimination against vocational training below university level proves to be a problem worldwide. The form an employment system has is not only a variable of different behaviourial patterns of companies, it is also strongly shaped by the specific mentality of a nation. Leaving all national differences aside, there are, nevertheless, "universals" such as discrimination against certain groups in society, in education, training and employment.

Joachim Münch

Professor Joachim Münch, PhD., University of Kaiserslautern Faculty of Social and Economic Sciences, Chairman of the Arbeitsgemeinschaft betriebliche Weiterbildungsforschung e.V. (Study Group Inhouse Continuing Training Research Association), Member of the Board of the Akademie für Führungspädagogik (Academy of Management Pedagogy) in Landau.

A whole set of basic conditions and influencing factors is decisive for the way an economy is set up and for how developed it is. These factors also determine the structure and state of a country's employment. The vocational training system and the level of qualifications resulting from it is one of these factors. It is perhaps interesting to make a problem-oriented comparison of vocational training, and in connection with this, of the employment systems in the world's three strongest industrialized nations and top competitors on the world market. The limited space available here allows me only to point out structural characteristics and to discuss some basic problems. Nevertheless, we will see, despite varying historical, cultural, social and economic starting points and differences that are to be expected, there are a number of similarities in the many constellations of problems. Because of the transitory situation and the special problems of the new federal Länder (states), the statements about Germany will generally refer to the Federal Republic of Germany prior to unification.

General education as the foundation for vocational training

Participation in education, an important indicator of the education level of the population, measured here by the duration of school attendance and the number of persons studying, is high in all three countries. On closer examination, remarkable differences can be noted, however. In Germany, where the typical school system is organized into Hauptschule (lower secondary), Realschule (intermediate secondary) and Gymnasium (academic secondary), school attendance in most federal Länder (states) is obligatory for nine years and in the remaining Länder for ten years. However, more and more young people, are continuing their education beyond the mandatory period, attending either a Realschule or more frequently a Gymnasium, which entitles them to go to university. In 1990, the number of pupils attending a Gymnasium was almost as high as the number attending a Hauptschule. Today, over 30% of any one age-group acquires a certificate entitling to admission to an institution of higher education.

We can also speak of an "expansion in education" in Japan. Mandatory school attendance there is nine years throughout the country. However, most Japanese attend school for 12 years and over 94% earn an upper secondary school leaving certificate!

In the USA, obligatory school attendance is not regulated according to the number of school years but according to age. In two-thirds of the States, the mandatory age is 15, and in one-third of the States (with the exception of Mississippi where pupils can leave school at 14) the mandatory age is 17.

If the state of general education in Germany, in spite of increasing criticism, is relatively high, so, too, is it in Japan. But that is not the case in the USA. American high schools are engulfed in a major crisis. This is also evident in recent estimations indicating that over 30% of young Americans are so-called dropouts, in other words they leave high school without a certificate. Not only for this reason but also because of the general school crisis, the illiteracy level in the USA, and here we mean functional illiterates, is especially high. To make an estimate of 25 million functional illiterates is certainly not overstated. This has a direct effect on vocational training in as far as some companies see themselves forced to offer remedial reading and writing courses as a prerequisite for continuing training. This problem can also be found in the European Community countries, however: "There is in fact a serious illiteracy problem in the European Community and as a result, many employees are not in a position to participate in high-level continuing training courses or to adapt to the far-reaching technological changes." (Allgemeine und berufliche Bildung / Jugend, Beiheft n.d. p. 4)

It is both interesting and informative to note that due to the influence of the American occupation following the second world war, the external structure of the Japanese educational system is very similar to that of the American system; the results are radically different, however. If, as many Japanese experts maintain, the high level of general education is an important prerequisite for the innovative strength and success of the Japanese economy, then the desolate state of general education in the USA can and must be made responsible for the plight of vocational training in the USA and for its flagging economic prowess and failing ability to compete internationally. While we can speak of the quality of schools being relatively homogenous in Germany, this does not apply to Japan and the USA. This has to do with the far more important role of private schools in these two countries. Private schools in the USA are generally the better schools, while in Japan it is just the opposite. Making a broad generalization, we can say the state of general education in Germany and Japan provides a good prerequisite for ensuing vocational training or higher education. Nevertheless, there is a marked difference between Germany and Japan with regard to university admission. In Germany, there are no university entrance examinations, but in Japan these play a vital role in the career opportunities available to young Japanese. Japanese universities are rated according to a broadly known and recognized hierarchy of quality and attractiveness; in order to pass an entrance examination for a respected university, students generally have to attend additional classes at "private coaching schools". Examinations, including the entrance examination for upper secondary school, play a special role in Japan. This so-called "examination hell" (Münch/Eswein, 1992, p. 75 ff.) has been discussed critically in Japan by policy-makers for education.

Institutions of higher education - the future training centres of the nation?

In 1990 for the first time ever, the (old) Federal Republic of Germany registered more students (1 585 200) than trainees (1 476 900), but it is misleading to compare the total number of students with the total number of trainees. Such a comparison obscures the still significant numbers of persons being educated under the dual system because university education takes twice as long in practice as vocational training in the dual system. Vocational training in the dual system still has paramount importance in the overall spectrum of educational opportunities in Germany. In 1990, 74.8% of the population between the ages of 16 and 19 were trainees (Grund- und Strukturdaten, 1991/1992, p. 106). Nevertheless, quite a few policy-makers responsible for vocational training expressed their surprise at this trend and are unsure of how to evaluate the fact that more than 30% of young people earn a certificate which enables them to attend an institution of higher education. On the one hand, education policy-makers and labour market politicians agree that the innovative ability and economic strength of a modern industrial and service-oriented society depends on increasingly high qualification levels. On the other hand, it is becoming more and more difficult to fill the continuing high demand for skilled workers and middle management such as master craftsmen and technicians. Industry complains that it is becoming more and more difficult to find enough suitable applicants to train in the dual system. At the same time it promotes the "surge towards higher education" by offering graduates on the average far greater financial and social opportunities than it provides for those who complete the dual system. Bearing this in mind, the behaviour of young people is thoroughly rational. If they are in doubt as to what to do and if their abilities allow, they decide on university education, all the more so since the statistics show - at least in Germany - that graduates are less threatened by unemployment than employees who have not enjoyed a university education.

Of the three industrialized nations discussed here, we can say the USA is the one which has assumed to a certain extent a pioneer role in the field of educational expansion. The number of students attending colleges and universities has continued to increase in the USA since 1970/1971. In 1970/71, there were about 8 581 000 students in the USA, while in 1986/1987 there were about 12 397 000 (Länderbericht Vereinigte Staaten, 1989, p. 45). This is remarkable considering that in the USA - in contrast to Germany - attending a college or university entails paying tuition, which on the average is not as high as in Japan, but in individual cases it is certainly a financial burden for students and their parents. On the other hand, about every second American student holds a job - primarily for economic reasons. On the whole, American universities are rather open regarding admissions. At the same time this openness permits an extreme "openness for leaving" too, since almost every second student drops out of higher education without obtaining a degree. In contrast to Germany, dropping out of university is not considered a "social disgrace" because one can "weave one's way" into the higher education system again at any time, especially through community colleges. The average dropout rate in Germany, which varies greatly from faculty to faculty, is estimated to be 25%. Regardless of these differences, it is valid not only for Germany and the USA but for Japan as well that more education and especially university education benefits the individual as well as society. As they began after the Americans, it remains to be seen if the Japanese have completed their "educational expansion". While the number of students at colleges and universities has stagnated at a high level (over 30% of any one age-group), special training schools are becoming more important (Münch/Eswein 1990, p. 88 ff.). In 1990, there were 3 252 special training schools with approx. 747 000 pupils. The special training schools seem to be providing an alternative to studies at a university. In part this is due to the gradually changing recruitment pattern of companies but also to the changed attitudes and expectations of young Japanese, who are no longer willing as a matter of course to endure the pangs of the "examination hell" so that they might study at a renowned university. The preliminary decision on career and social opportunities within the educational system together with its instrument of strictly selective examinations and the so-called educational career society are becoming less stringent in Japan these days even though the process is a gradual one. The greater openness of the higher education system in the USA has the effect that the struggle for social and career status tends to take place on the labour market. German institutions of higher education do not have entrance examinations; whoever has a final school-leaving certificate may study. The clear increase in the number of persons leaving school with a final school-leaving certificate, as has been the case in Germany over the last three decades, will also decide social and job opportunities and thus social status and occupational positions on the labour market. It still holds true, however, that anyone who has not attended an institution of higher education will definitely be at a disadvantage.

Discrimination against vocational training - a problem worldwide

Here we have a problem which not only exists in the three countries we are discussing at the moment but is also apparent in the People's Republic of China, for example (Münch/Risler, 1986). What is meant is the lower social status of vocational training compared to general education, and the well-known repercussions of this on the decisions taken by parents and children pertaining to the various educational and training opportunities. As the results of surveys have shown, far more than 50% of parents in Germany would like to see their children leave school with a final school-leaving certificate, or in other words, with the entrance qualifications to an institution of higher education. We should not forget that just 35 years ago, barely more than 5% of any one age-group left school with the final school-leaving certificate. In Germany, easier access to general education secondary schools provides greater opportunities to attend an institution of higher education. While this does not actually threaten the existence of the dual system, the core of vocational training for skilled workers, it does erode it to a certain extent. There is no area of training in the USA or Japan comparable to the German system of qualifying skilled workers. Japan does not have a system for training apprentices in the narrow sense, and in the USA it plays such a minimal role as far as numbers go that it can be disregarded here. What clearly appears elsewhere, and in fact within the education system itself, is the paltry value placed on vocational training. Common to both countries and different from Germany is the fact that upper secondary schools offer vocational training courses; there are also upper secondary schools which expressly call themselves vocational training upper secondary schools. In both countries these schools are not as highly regarded as their general education counterparts. The proof of an applicant having taken vocational training courses is of no importance to companies recruiting upper secondary school leavers. In other words: The proof of vocational "qualifications" gained at such a school is not valued upon entering employment because of the lack of professionalism of the qualifications. At the same time they reduce the chances of attending an institution of higher education. Especially in Japan, companies prefer school leavers with a solid general education so they can train them within the company to meet their own standards and requirements.

On closer inspection, considerable differences are apparent between the recruitment conditions and recruiting practices of Japanese and American companies. The direct transition from school to a company that provides training is to a certain extent "standard" in Japan. Training and personnel development (Münch/Eswein 1992, p. 124 ff.) are highly valued in Japanese companies. A fair share of the newly hired employees will later rank as key staff, which amounts to employment for life. In contrast to American firms, Japanese companies are less interested in maximizing short-term profits and more interested in long-term conservation of resources. From this point of view, Japanese companies feel the considerable investment in human capital is worthwhile.

Heggemann/Stern

Ingo Wagner/forum

The secondary labour market in the USA - a qualifications trap?

Different rules apply in the USA. First of all, attention must be drawn to the prevailing principle of "hire and fire" in the USA which is both an expression of and a condition for the very common practice of moving between companies. In other words, whether voluntarily or involuntarily, American employees change companies and thus their jobs extremely often. This behaviour is practised as a matter of course by many young Americans who leave high school and land on what is known as the "secondary labour market" (Münch, 1989, p. 10 f.). The term is used to describe the large number of employment relationships (predominantly in small and medium-sized enterprises) which are characterized by minimal job requirement profiles, low wages, instability, and a lack of career opportunities in particular. The majority of young people who leave high school, but also those young people who leave college after one or two years, earn their living on this secondary labour market. This type of employment, which might last several years and sometimes be interrupted by periods of unemployment, is often - very vividly - called a "floundering period". The relatively relaxed attitude of Americans in regard to frequent job changes, employment and unemployment is an important reason why 16-22 year-olds on the dividing line between school and employment do not think it necessary for the time being to have solid vocational qualifications. This has a thoroughly negative impact on the qualification level of a good part of the American population. In this "floundering period", characterized by low qualification requirements because it is mostly unskilled work they do, young Americans not only learn nothing or very little during this time, but they also forget what they have learned at high school. This is not very conducive in terms of education or motivation to later re-entry into systematic learning, be it in apprenticeship training (seldom) or at one of the numerous two-year colleges (Münch, 1989, p. 68 ff.), which are strongly committed to training as well as continuing training.

Differences in mentality and the role they play

In assessing different situational conditions and patterns of behaviour in various countries - such as in Germany, Japan and the USA - it is necessary, of course, to take into consideration differences in mentality that have come about through cultural and historical traditions. For instance in Japan, learning is largely regarded as a service to the community, while a job mentality is typical for the USA. Since the time of Martin Luther, who added a religious element and significance to work, occupations and thus, vocational training, despite some changes and some toning down, have played and still play a major role in Germany. Only against this background does it become obvious that training in the dual system directly after leaving school is the most natural thing in the world for most young Germans (and their parents). A brief comparison showing the transition from school into the working world in the three countries discussed here could be formulated as follows:

- In Japan about one-third of upper secondary school leavers enrol at a university or a "short university". A significantly smaller but growing number acquire a vocational qualification at a special training school. The rest go straight into a company, where they acquire a qualification. The company bears the sole responsibility for this training, which is tuned to the company's specific needs. Learning on the job and in a group as well as job rotation within the group and with the group are given high priority.

- In the USA 35-40% of high school graduates enrol at college, while most other young people go through a "floundering period" which lasts a number of years and is not very productive in terms of the qualifications they gain. Only later do some of them make their way into systematic training, either at a two-year college, in the form of an apprenticeship training, which plays a numerically insignificant role in the USA or within the framework of training or continuing training at a company.

- In Germany more than 25% of any one age group enrols at university or a specialized college of higher education; some 10-12% join the workforce immediately, while the greater percentage of young people generally commences training under the dual system directly after leaving school.

Various forms of occupational mobility

While high occupational mobility in the form of changing jobs and positions is a characteristic feature of the American working society, this phenomenon is gaining ground in Germany in a different constellation. The fact that the majority of young Germans complete their training as skilled workers, and during these three to three-and-a-half years are bound by contract to a company, does not mean in the slightest that after completing vocational training a long-term relationship with the company and the occupation automatically follows. This has been confirmed in recent studies (Schöngen/Westhoff, 1992).

In 1989, 56% of the workforce surveyed had not received a job offer from the company where they trained. Three years after they had completed their training, 39% of all employed skilled workers in the metalworking sector had left the occupation they had learned and were employed in another occupation. The situation with electricians was not much different either: 34% had changed their occupation. We have seen that mobility between companies is especially high in the USA; in Germany, as illustrated above, it is by no means slight either. Meanwhile there appears to be a gradual change in this direction in Japan as well (Münch/Eswein, 1992, p. 167 f.). The exclusive recruitment of school leavers and university graduates and their life-long employment entailing high mobility within the company (job rotation in groups) has never been reality in Japan, contrary to information and generalizations that one always comes across. It is estimated that only about one-third of employees can be counted among permanent core staff. This applies only to large-scale companies, however. In other words, even in Japan, the labour market outside the company is by no means as lifeless as is often assumed. In this connection, one-sided focusing on large-scale companies in vocational training policy and research should be criticised. In all three countries, and the same applies of course to the EC countries, most of the workforce (more than 90%) is employed in small and medium-sized businesses.

Disadvantaged groups in the education and employment systems

Notwithstanding the very different starting positions and basic conditions, there are a great number of similarities when it comes to discrimination against certain groups of people and employees in the education and employment systems. This applies to women for instance in Germany and the USA and even more so in Japan by reason of the special historical and traditional position women have in the family and society. This is also true to a high degree for ethnic minorities in the USA, where racial discrimination is closely linked with diminished opportunities in education, training and employment. What is not so well-known is that Japan also discriminates against minorities in society, occupation and employment. The Burakomins are one such group; it would be impossible for example for a Burakomin to find employment in a reputable large-scale company (Münch/Eswein, 1992, p. 17 ff.). However, Germany is also not free from prejudice and discrimination against certain groups in society, above all guest workers and their children. Education and training are decisive factors in determining social and occupational opportunities; He who has learnt little or nothing at all is more likely to be condemned to unemployment and has the least chance of finding work again. This close connection between education and training on the one hand and employment opportunities on the other is valid for all countries. Education and vocational training policies are at the same time social and labour market policies as well. This has been recognized not just in Germany, Japan and the USA but in the EC countries, too. Although the awareness is there, it remains to be seen whether the appropriate consequences will follow with the force and to the extent demanded. The problem of discrimination and the continuing imbalance between job supply and job demand cannot be solved by vocational training policy alone. Social and economic policy in particular must rise to the challenge.

Anders/Stern

Bibliography

Allgemeine und Berufliche Bildung / Jugend. Beiheft: Gemeinsame Stellungnahme zum Zugang zur beruflichen Weiterbildung. n.p., n.d.

Der Bundesminister für Bildung und Wissenschaft (ed.): Grund- und Strukturdaten 1991/1992. Bad Honnef n.d.

Münch, J.: Das berufliche Bildungswesen in der Bundesrepublik Deutschland. (Vocational Training in the Federal Republic of Germany). Berlin 1982, 3. Auflage 1987.

Münch, J. and M. Risler: Berufliche Bildung in der Volksrepublik China - Strukturen, Probleme und Empfehlungen. (Vocational Training in the People's Republic of China Structures, Problems and Recommendations). Luxembourg 1986.

Münch, J..: Berufsbildung and Bildung in den USA - Bedingungen, Strukturen, Entwicklungen und Probleme. Berlin 1989.

Münch, J. and M. Eswein: Bildung, Qualifikation und Arbeit in Japan - Mythos und Wirklichkeit. Berlin 1992.

Schöngen, R. and G. Westhoff: Berufswege nach der Ausbildung - die ersten drei Jahre. Berichte zur beruflichen Bildung. Berlin 1992.

Statistisches Bundesamt (ed.): Länderbericht Vereinigte Staaten 1989. Stuttgart 1989.

Statistisches Bundesamt (ed.): Länderbericht Japan 1990. Stuttgart 1990.

Initial vocational training in France: competition, hierarchy and history

The precise and complex architecture of the French system of initial training and the various mechanisms which regulate its operation mean that it is able in theory to meet a range of economic and social needs. This apparent harmony masks tensions dating back to the past and arising from changing expectations and demands on the part of decision-makers, consumers and users of this system. Simple adaptation is not enough to solve these problems. The identity and function of the various streams of training need to be redefined so that they are in keeping with the operation of the labour market and the ways in which professional identities are constructed.

An overview of the organization of the training system in France is attached as an Annex. The system is structured in two ways: by levels and by streams. Over 600 diplomas meeting different occupational objectives are distributed among these levels and streams.

Levels are defined with reference to a grid of qualification levels developed at the end of the 1960s[1] as part of planning work for the forecasting of training needs. This reference grid is currently used to classify training schemes and diplomas by relating them to jobs using a principle of horizontal correspondence.

Jean-Louis Kirsch

Officer responsible for technological and vocational training at CEREQ (Centre for study and research into qualifications).

Streams divide the educational system into three routes. These are:

- the general stream preparing students for entry into long-cycle higher education;
- the technological stream from which students move directly into jobs or enter short-cycle higher education of a vocational type;
- the vocational stream which prepares students for diplomas - CAP (vocational aptitude certificate), BEP (vocational studies certificate) and vocational baccalauréats (Bac. pro.) - aimed essentially at direct entry into working life at various qualification levels*.

This seems to provide the ideal conditions for matching the level and speciality of any occupation to the list of diplomas available and for diplomas to provide training for a specific occupation. This apparent order masks ambiguities which destroy any correspondence and create a number of sources of confusion in the operation of the educational system and its relations with its surrounding environment.

Confused streams

What seems to be a balanced system is actually the result of an accumulation of policies from different times. For instance, the distinction between "targeted" higher technician certificates (BTS) and the university diploma in technology (DUT), said to be more horizontal, which can be justified by the existence of different qualification needs is in fact the result of keeping two diplomas when the initial plans were for the second to replace the first[2]. In contrast, plans to replace the three-year CAP after class 5 by a two-year CAP after class 3, so that it is genuinely compatible with the BEP, have not been put into practice. The development of vocational baccalauréats is a further attempt to create a level IV diploma linked to an occupation, following on from those which led to the technical certificate (BT) and the technical baccalauréat. Although its success is still in the balance, it has already led increased numbers of technological baccalauréat holders to continue their education, further worsening the already disturbed image of the various streams. While 70% of those leaving the final year of secondary education in the general stream continue their studies as against 26% in the technological stream, in terms of numbers 59 000 young people from the general stream end their education at level IV in comparison with 67 000 from the technological stream with the result that the former are in rather favourable competition with the latter for jobs[3].

Ambiguous qualifications

Barriers and overlaps and the effects of competition and divergence which are not evident at first glance are therefore evident from historical and statistical data. This is the normal picture of a developing system

---

(*) There is also a technical stream leading to a technical certificate and offering the possibility of further education, chiefly towards higher technicians' positions. This stream is being withdrawn and the types of training which it offers are being distributed among technological and vocational baccalauréats.

and has analogies with a tree, some of whose branches grow faster than others while other branches wither and which retains the scars of an earlier age in its maturity. Attempts are usually made to explain this development in relation to the development of the labour market. Unfortunately this type of analysis is particularly simplistic in the French system where the gap between the training system and the production system is wider than in other systems[4].

It is striking, for instance, that the definitions and levels of diplomas are related to occupational positions by general categories (technical workers, higher technicians, etc.) or by activities carried out (skilled, highly skilled, supervisory, etc.). These references have been formulated solely by the training system and do not therefore prejudge the occupational category within which individuals will be classified when they obtain jobs. The industry-wide collective agreements negotiated by the social partners tend to classify jobs rather than people or diplomas and reference to training is not compulsory in these agreements. Such references are tending to increase, but are rarely as detailed as official Ministry of Education documents.

This situation creates a schizophrenic operating method, in which the training system dispenses certain qualifications and the production system recognizes others, with the result that even the term qualification is confusing and its use raises more problems than it solves. To extend the title of the work edited by LucieTanguy[5], the relationship between training and employment is not impossible to find, it is psychotic.

Recession and contraction

While there was full employment, the gap between the theoretical model of the training system and the actual operation of the labour market did not raise any problems. The dual aim of vocational training, i.e. placing people in jobs and continued education, made it possible to regulate the numbers of people emerging from the system in accordance with the needs of the labour market. While there was undoubtedly a hierarchy of training schemes, with the longer schemes paving the way for better paid and socially more prestigious jobs, the existence of good advancement prospects within enterprises and the development of continuing training made up for this initial handicap.

Production system: fewer opportunities for young people

The recession has led to a contraction of the labour market for young people who account for a dwindling number of those recruited. In 1973 young people accounted for 15.4% of the 3 980 000 jobs filled. By 1984 the number of jobs filled had fallen to 2 560 000 and young school-leavers and apprentices accounted for only 12.2%. In 1987 (the most recent figures available), more jobs were filled (3 070 000) but the proportion of young people fell to 11.2%. On these same dates, people changing jobs accounted for 55.5, 40.8 and 42.2% respectively and the unemployed for 4.5, 22.7 and 25.7% respectively[6]. In overall terms, people aged under 30 accounted for one third of the working population in employment in 1975 and one quarter in 1989.

This would seem to indicate that employers prefer to recruit workers who have

Ullstein

already been employed rather than young people. This preference tends to be interpreted as an expression of dissatisfaction with the performance of the training system. While this practice existed before the recession, it was limited by the extent of the labour demand and the demographic features of the population: the recruitment of young people depended on a limited number of sectors such as building which acted as staging post and turntable for economic activities as a whole[7].

This preference for the adult population has also been encouraged by the growth of continuing training funded by enterprise: the financial contribution made by enterprise increased from 1.35% to 3.14% of their wage bill between 1972 and 1990[8].

A time will undoubtedly come when the ageing of the population will make it necessary to pay more attention to younger people and it may be that the current situation is moving in this direction, since one of the main problems at the moment is the paradoxical combination of skilled labour shortages in some areas and the extent of unemployment among increasingly better trained young people. This has encouraged the establishment of formulae halfway between training and recruitment which are intended to help young people to make the transition between school and work and give employers monitoring and selection abilities which the education system does not provide.

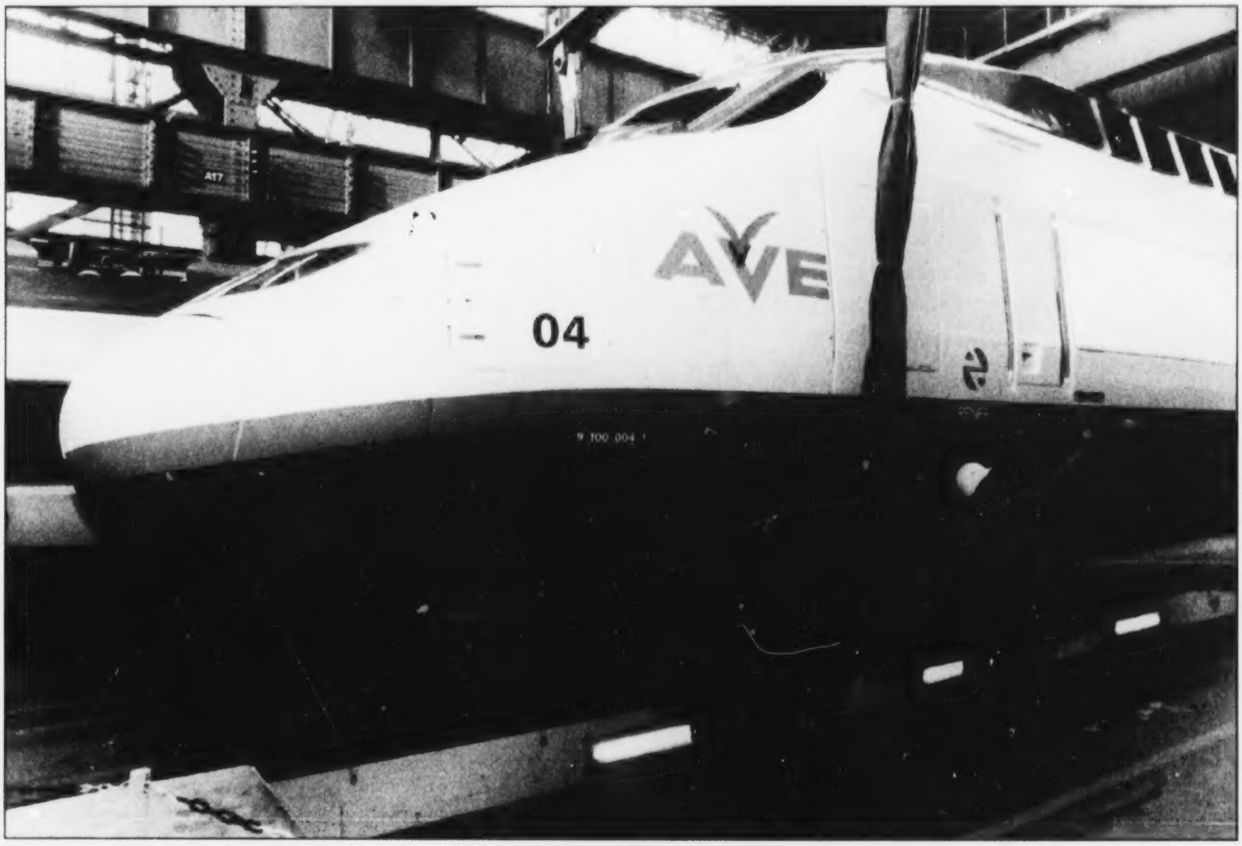
From the point of view of recruitment, therefore, competition between diplomas comes behind competition between categories of workers able to fill posts. Young people leaving the education and training system consequently play a regulatory role and are not given priority.

Educational system: tendency towards isolation

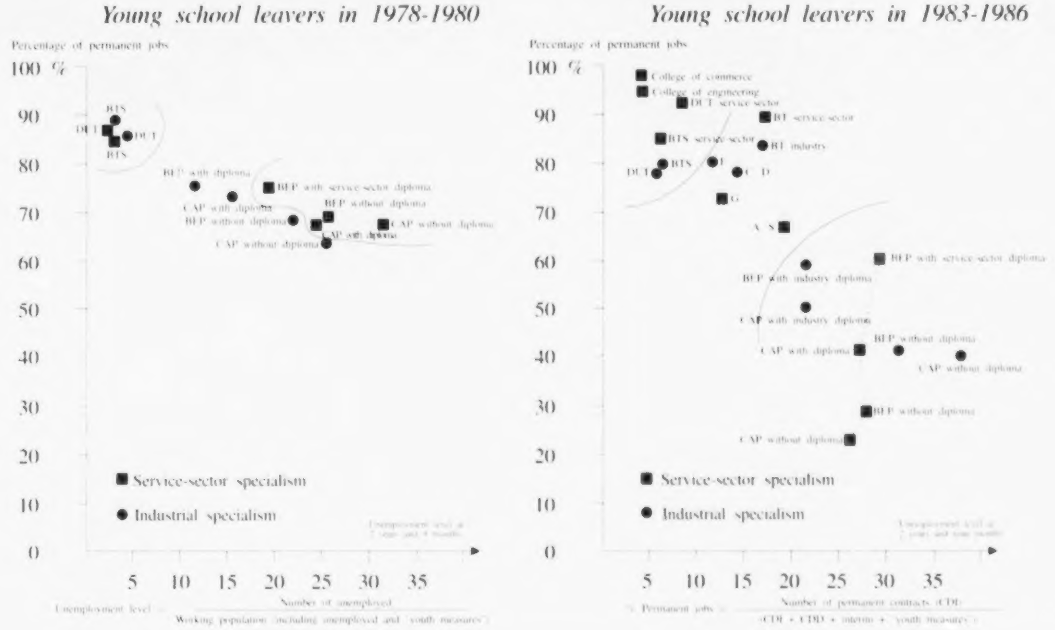
While the school system reacted at the outset by keeping people in education for longer periods, the prolonged recession has transformed this short-term answer into a long-term trend, especially as the restructuring of the working population in employment has made this development necessary. Between 1982 and 1990, the number of manual workers fell by close on 3 000 000 and the number of agricultural workers by 1 000 000, the number of office workers increased by 500 000, the number of intermediate occupations by 600 000 and the number of managers by 800 000. Numbers of traders and craft workers have remained stable.

There has therefore been a substantial growth in the demand for people with level I, II or III diplomas and a decline in the demand for level V diplomas. It has been argued that this level no longer has any economic use because of the placement problems faced by people leaving at this level in comparison with those at higher levels, as though both categories were aiming for the same jobs, which is not the case, especially in industry. Level V no longer prepares people for direct entry into working life and has taken on a social role, providing help for the less successful, or an introductory role after which people can move on to the higher levels. The first trend relates in particular to some CAPs and the second to all BEPs since it is possible to move on from these to the vocational baccalauréat. The vocational baccalauréat therefore seems set to kill off

AFP



The occupational situation of young people two years and nine months after leaving the education system



Source: CEREQ – Monitoring unit for recruitment into working life

the CAP, although this murder has more to do with the internal regulation of flows within the educational system than with changing economic needs.

From the point of view of demand from trainees and their families, training schemes are evaluated in terms of the potential which they offer for continued studies and for access to jobs, making it possible to divide them into three groups: schemes which allow for continued education, irrespective of the vocational skills or orientations which they set out to provide, schemes which provide real potential for employment and schemes which make it possible to stay in the training system and avoid any need to face up to unemployment at an early age. The second group is the most unstable as there is always a risk that it may merge with one of the others with the result that the vocational aims of a training scheme are becoming the least reliable element in any decision. An illustration of the first case is provided by the university diplomas in technology (DUT), whose selective entrance procedures provide a guarantee of level making it possible to convert them into the equivalent of classes preparing for the colleges of engineering[9]. Mention could also be made of the recruitment of top-level arts students who are increasingly holders of a baccalauréat in mathematics and physical sciences as a result of this same principle. The second group includes most industrial training schemes even at level V. The final group includes some general training schemes of the literary type, service-sector or office training schemes and those industrial training schemes into which girls are traditionally channelled (for instance clothing). The above diagram[10] shows the dynamics of this hierarchical development. It shows the substantial differences between industrial and service-sector training specialisms and the increasing importance of a diploma for entry into employment. It also highlights unexpected rivalries, for instance between general and vocational streams. Competition between diplomas does not therefore fit into a simple linear hierarchy and the principle of increasing the length of education tends to penalize students who have not done well without clearly improving the situation of students in more favourable circumstances: everyone is facing growing periods of unemployment in the initial years of working life whatever diploma they may possess and whatever its level.

Conclusion

From a historical point of view, tensions between training and production systems have changed in nature. In the 1970s problems related to the definition and establishment of qualifications and since the mid-1980s they have related to social and occupational integration. This may be an opportunity for those involved in these two systems to establish a genuine dialogue to replace what has up to now often been no more than interlinked monologues. The development of alternance formulae offers them an exceptional opportunity to bring institutions closer together at all levels from the national to the local. Will this opportunity be taken? Will the old demons of conflict gain the upper hand as indicated by the current discussions as to whether alternance schemes should have school status or employee status? Depending on the alternative chosen, the training system could really be called vocational or will remain no more than technical.

Annex: formal perfection and functional adaptability

Training levels

Nomenclature of training levels

(Approved by the Standing Committee for Vocational Training and Social Advancement on 21 March 1969)

Level	Definition
I and II	Staff employed in jobs normally requiring training to a level equivalent to or higher than a degree or college of engineering award.
III	Staff employed in jobs normally requiring training to the level of the Higher Technician Certificate or the Diploma of University Technology Institutes and the end of the first cycle of higher education.
IV	Staff employed in supervisory jobs or possessing a qualification at a level equivalent to the technical or technician baccalauréat and the technician certificate.
V	Staff employed in jobs normally requiring a level of training equivalent to the BEP (vocational studies certificate) and the CAP (vocational aptitude certificate).
Va	Staff employed in jobs entailing short training lasting a maximum of one year, leading in particular to the Certificate of Vocational Education or any other award of this type.
VI	Staff employed in jobs not requiring education beyond the end of compulsory schooling.

Diplomas

At the beginning of the 1990 academic year, there were some 600 diplomas[11] distributed among the various streams and levels[12]:

- 350 CAP specialisms and options (level V, vocational stream). "Vocational aptitude certificates .. certify a vocational qualification. Each vocational aptitude certificate officially recognizes vocational, technological and general skills sufficient for the performance of a skilled occupational activity" (Decree 87-852 of 19 October 1982);

- 55 BEP specialisms and options (level V, vocational stream). "Vocational studies certificates .. certify a vocational qualification. Each vocational studies certificate officially recognizes vocational, technological and general skills and knowledge sufficient for the performance of one or more activities within an occupational sector or a function common to several occupational sectors" (Decree 87-851 of 19 October 1987);

- 26 vocational baccalauréat specialisms and options (level IV, vocational stream). "The vocational baccalauréat is equivalent to the upper secondary leaving certificate. It certifies that its holders are able to perform a highly skilled occupational activity" (Decree 86-379 of 11 March 1986);

- 18 technological baccalauréat specialisms and options (level IV, technological stream). "The technological baccalauréat is equivalent to the upper secondary leaving certificate. It certifies that its holders are able to perform a technician activity" (Decree 86-378 of 7 March 1986);

- 8 general baccalauréat specialisms (level IV, general stream), allowing registration at university;

- 101 higher technician certificate specialisms and options (level III, technological stream). "The higher technician certificate .. certifies that its holders are able to occupy higher technician posts in industrial or commercial professions, in service activities or in applied arts activities" (Decree 86-496 of 14 March 1986);

- 30 university technology diplomas (level III, technological stream) "which prepare for technical and professional management tasks in some sectors of production, applied research and services" (Decree 84-1004 of 12 November 1984).

Leaving aside general baccalauréats, this list shows that there are two types of diploma at each level intended to meet different needs: diplomas which offer specialization (CAP, Bac. pro, BTS) and diplomas which offer more general skills (BEP, BTs, DUT) making it simpler to find correspondences between training and employment.

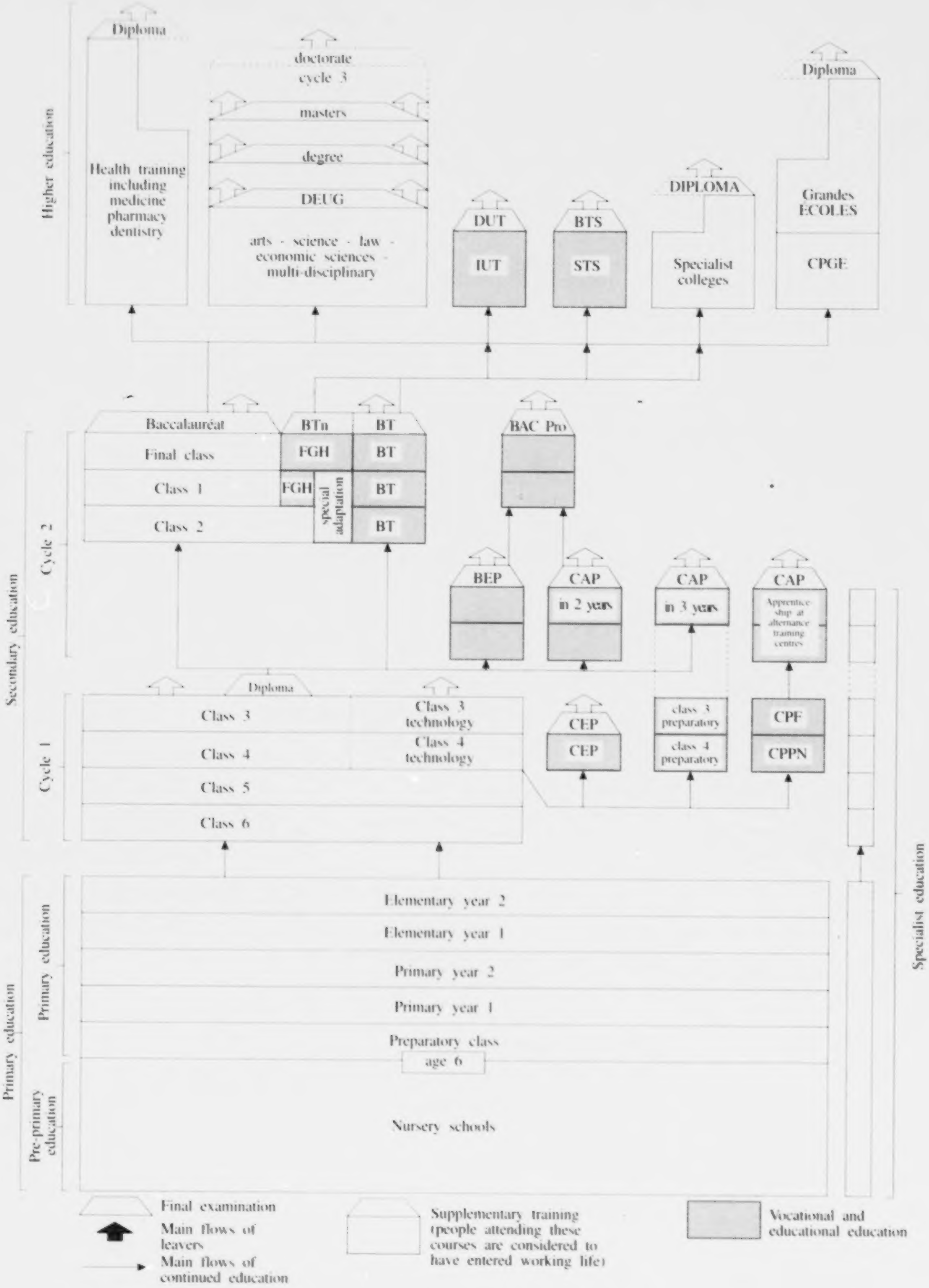
Adjustment procedures

Adjustment of the quality of training scheme and diploma content is the responsibility of the **Consultative Professional Commissions**. Since 1983 these Commissions have operated on a regular basis within the Ministry of Education and carry out a five-yearly review of the technological and vocational training schemes attended by the largest numbers of trainees. They have also trimmed existing training schemes, in particular by discontinuing obsolete schemes: the number of CAP specialisms offered has therefore been trimmed from 317 in 1974 to 243 in 1990.

Key

BAC	School-leaving certificate
BAC-Pro	School-leaving certificate with specialization
BEP	Vocational studies certificate
BT	Technical certificate
BTn	School-leaving certificate, specialization in technology
BTS	Higher technician certificate
CAP	Vocational aptitude certificate
CEP	Vocational training institute
CPA	Pre-apprenticeship preparatory year
CPPN	Pre-vocational training preparatory year
DUT	University diploma in technology
FGH	Orientation for technical and preparatory school-leaving certificate
IUT	University institute of technology
STS	Short preparatory training course for higher technicians
DEUG	University degree

Organization of the education and training system


Higher education
Diploma
Health training including medicine pharmacy dentistry
doctorate
cycle 3
masters
degree
DEUG
arts - science - law - economic sciences - multi-disciplinary
DUT
IUT
BTS
STS
DIPLOMA
Specialist colleges
Diploma
Grandes ECOLES
CPGE
Secondary education
Cycle 2
Baccalauréat
Final class
Class 1
Class 2
BTn
FGH
FGH
special adaptation
BT
BT
BT
BT
BAC Pro
BEP
CAP
in 2 years
CAP
in 3 years
CAP
Apprenticeship at alternance training centres
Cycle 1
Diploma
Class 3
Class 4
Class 5
Class 6
Class 3 technology
Class 4 technology
CEP
CEP
class 3 preparatory
class 4 preparatory
CPF
CPPN
Specialist education
Primary education
Primary education
Elementary year 2
Elementary year 1
Primary year 2
Primary year 1
Preparatory class
age 6
Pre-primary education
Nursery schools
Final examination
Main flows of leavers
Main flows of continued education
Supplementary training (people attending these courses are considered to have entered working life)
Vocational and educational education

NB: Each box represents 1 year of education, except for preschool (age 2 to 5) and higher education)

Source: Statistical information on education and training

Consultative professional commissions Decree 72-607 of 4 July 1972

Article 1 - Each Minister responsible for continuing vocational training or technological education establishments or schemes may establish, by decree, consultative professional commissions.

It shall be mandatory for each of these commissions to deal with one of the branches of activity set out in the table annexed to this Decree.

Each commission shall comprise:

- an equal number of representatives of employers and workers proposed by the most representative union organizations;

- representatives of the public authorities appointed by the Ministers concerned and including, in any event, a representative of the Minister for Labour, Employment and Population and a representative of each of the Ministers competent in respect of the nature of the training schemes to be examined by the Commission and a representative of the centre for study and research into qualifications (CEREQ);

- qualified persons from the public or private sector, selected because of their professional activities or work, including representatives of teaching personnel and representatives of chambers of commerce and industry, chambers of trade or chambers of agriculture.

Each commission may establish, for the examination of certain problems, permanent or temporary sub-commissions or working parties which may include, in addition to those of its members which have been appointed thereto, any person whose presence would be likely to benefit the research in question. (...).

Article 2 - Consultative professional commissions shall formulate, from the study of professional qualifications, opinions and proposals:

1. on the definition, content and development of training schemes in the professional sectors for which they are responsible;

2. on the development of training resources as a function of trends in employment vacancies and the needs of the sector of activity in question;

3. on questions of a technical and educational nature linked to the formulation and application of programmes, training methods and their recognition.

They may be instructed to examine any general or specific question relating to the technological education and training schemes coming under the responsibility of the Ministry by which they have been established.

List of consultative professional commissions

1. Agriculture and allied activities
2. Mining industries and construction materials
3. Iron and steel and initial processing of metals, mechanical engineering, electricity, electrical engineering, electronics
4. Glassworking and ceramics
5. Building and public works
6. Chemicals
7. Foodstuffs
8. Textile and allied industries
9. Clothing
10. Wood and derivatives
11. Transport and maintenance
12. Audiovisual and communication technologies
13. Applied arts
14. Other industrial activities
15. Marketing technologies
16. Administrative and management technologies
17. Tourism, hotels, leisure
18. Other service-sector activities
19. Personal services
20. Health and social sector

Adjustment of quantity at national level is based on the **principle of the dual objective** of technological and vocational training, i.e. that it is possible, at each stage represented by a diploma, for trainees to continue their education or to enter working life. The principle of continued education is set out in the decrees establishing each of the diplomas in question. It is thus possible to continue in the same stream, for instance from the CAP to the BEP, from the BEP to the Bac. pro. or from the BTn to the DUT, or to change stream, for instance from the BEP to the BTn or from the BTn to long-cycle higher education.

Adjustment procedures also make provision for some thirty or so supplementary endorsements, under which CAP or BEP expertise can be built on over a year in a very specialist field (gemology, auditing, etc.).

Bibliography

1. **Affichard Joelle**: "Nomenclature de formation et pratique de classement". Formation-emploi, 4, October December 1983.

2. **Belbenoit Béatrice**: "Les IUT ont-ils été détournés?" in "Le niveau III de formation (BTS, DUT...), crise de croissance?" Collection des Etudes du CEREQ, 1991.

3. **Guilliet Béatrice, Pottier François**: "Insertion professionnelle et recrutement des jeunes au niveau du baccalauréat" in "Niveau IV de formation et baccalauréats professionnels". Collection des Etudes du CEREQ, 49, April 1989.

4. **Campinos-Dubernet Myriam, Grando Jean-Marc**: "Formation professionnelle ouvrière: trois modèles européens". Formation-emploi, 22, April-June 1988.

5. "L'introuvable relation formation/emploi". Collective work edited by **Lucie Tanguy**. La Documentation Française, 1986.

6. **Audier Florence**: "Les recrutements des entreprises depuis 15 ans". Economie et Statistique, 216, December 1988.

7. **Amat Françoise, Gehin Jean-Paul**: "Accès des jeunes à l'emploi et mobilité des actifs: les emplois d'execution". Formation-Emploi, 18, April-June 1987.

8. "Statistiques de la formation professionnelle continue financée par les entreprises (traitement des déclarations d'employeurs no. 2483). Années 1989-1990". La Documentation Française, 1992.

9. CEREQ, DEP, DLC: "Le niveau III de formation (BTS, DUT...). Crise de croissance?". Collection des Etudes du CEREQ, 60, November 1991.

10. Taken from CEREQ-BREF, 58: "La difficile insertion professionnelle des jeunes", by **Pottier François and Zilberman Serge**. October 1990.

11. Not including 94 technical certificate specialisms and options due to be discontinued. "The certificate awarded to candidates who successfully pass the examinations shows the vocational specialism; the title of chartered technician or any other designation in use in the profession in question is linked to the possession of a certificate" (Decree 64-42 of 14 January 1964).

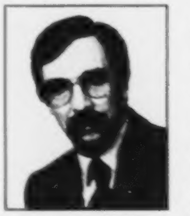
12. **Ministry of Education, Youth and Sport**: "Analytical nomenclature of the training provision of the Ministry of Education, Youth and Sport (second-cycle technical education and higher technicians)", 1989 edition, published on 15 May 1989.

Secondary training in Portugal

Experimenting with different types of organization and relationships with the employment market

The first part of this paper examines the position of secondary training within the Portuguese education system and discusses basic technological education within compulsory education. A brief presentation is then given of how the three main sub-systems aiming at providing students with grade III vocational qualifications - secondary technical courses, training colleges and apprenticeships - are organized and strive to link up with the employment market. Finally, mention is made of assessment currently taking place to evaluate the relevance of the responses which have only recently been tested.

The Basic Law of the Education System passed in Portugal in 1986 and now being implemented almost universally provides for a secondary education system organized unlike systems usually found in the other Member States of the European Communities. Instead of the normal two cycles, our new secondary education consists of a single three-year cycle between the 10th and 12th years of education (15-18 age group) and follows 9 years of compulsory basic education (1st cycle 4 years, 2nd cycle 2 years and 3rd cycle 3 years). In addition, it differs from the training systems of some of our Community partners in that the Portuguese system does not offer alternative training routes until after the compulsory 9 years of basic education. There are then basically 4 alternatives available: a) secondary courses designed primarily for continuing studies, b) secondary courses designed principally for working life or secondary technological courses, c) training colleges and d) apprenticeships, where training alternates with employment.



Luís Imaginário

Visiting lecturer at the Faculty of Psychology and Education Science at the University of Oporto. Assistant to the Secretary of State for Basic and Secondary Education.

Such an organization of the basic and secondary education systems, which of course influences the structure of training activities which are an alternative to them, has doubtless advantages, but it also presents certain difficulties; in fact, these advantages and disadvantages lie precisely in the contribution made by the training system towards the initial preparation of people for working life. Among the advantages, the - at least potential - clarity of the system, which clearly distinguishes general basic training - common and necessary for all young people - from secondary training, where the equally essential diversification takes place. Another equally beneficial point derived from the organizational logic of the system is that the choices among alternative training courses do not have to be taken until the end of the 9th year of schooling, i.e. at about 15 years of age. This is an age when, from what is known about the vocational development of young people, schooling will have helped to minimize some of the constraints which quite often seriously affect the development of training and vocational projects which are less in line with family aspirations and expectations or not determined to the same extent by social, economic and cultural factors.

The most salient difficulty arises from the fact that basic education itself does not offer alternatives for pupils who do not complete compulsory education - those who leave early and/or fail academically (who still amount to about 45% of those in basic education) and do not go on to secondary education. Another possibly greater disadvantage can be found in the configuration of a basic education curriculum having the general characteristics described earlier and, especially in our case, assigning to technological education a place in the 3rd cycle (7th, 8th and 9th years of schooling, 12-15 years age group). There appears to be no doubt that basic technological education, on the one hand, a) is an area of learning as valuable as, say, first language teaching, physical education or mathematics, b) involves acquiring skills and adopting attitudes leading to a willingness and systematic ability to understand and work in a physical or social environment in which maximum use is made of technology, not only hard, but especially new technology, c) increases the chance of overall success in the education of young people who, in this area of learning more than in others, are encouraged and motivated to develop a positive self-image which will then facilitate efforts in other areas - failure leads to failure, but success can also lead to success. On the other hand, disregarding basic technological education would have serious educative consequences in terms of the cognitive and socio-affective development of young people and adversely affect the emergence of their interest in technology, thus narrowing their range of options of training, vocational and life projects. However, aside from these quasi-certainties there are still doubts about the actual way, or ways, of making basic technical education effective, and even about its specific objectives. Should it be an independent subject or an extension of other subjects? Of all, or only some subjects? Which? Which areas of technology should be exploited? Is all technology to be covered? How? "Vocational initiation" objectives? Possibly, but surely not in the sense that young people would be taught a number of specific vocational skills which would be immediately marketable in the world of employment. Furthermore, what is the connection between this basic technological education and the Community recommendation that no young person should enter employment without having had the opportunity of at least one year's vocational training? However, this question is still open and we feel that the solution adopted, i.e. technological education as a separate subject in the 3rd cycle of basic education, which schools must provide but which is optional for pupils, must be reviewed after a short time. This need for review derives from the conviction that much of the success or failure in secondary training, especially training which explicitly and primarily aims at teaching intermediate vocational skills, will depend more decisively on success or failure during the preceding 9 years of basic schooling which include dimensions of technological education than on the structure of the secondary training itself. This is another reason for our insistence in dwelling on this point, which is to a certain extent an starting point for the analysis of this secondary training, an analysis which will be restricted to the way - different, but presumably complementary - the training is organized to satisfy the requirements of the employment market.

We have dealt only with technological courses at training colleges and in the apprenticeship system - all equivalent to the 12th year of schooling, to secondary education, and all presumably teaching grade III vocational skills complying with the European Communities Council Decision of 1 July 1985 on the classification of training grades, and as such all fulfilling the conditions for a certificate. (Apprenticeships, and to a limited extent training colleges, also provide grade II training opportunities, which offer an alternative for students who do not complete the 9 years of compulsory basic education in the normal education system and which at the same time ensure that these students acquire this vocational qualification. This type of training, which therefore satisfies one of the difficulties in our basic education previously indicated, i.e. its relative lack of differentiation, will not be examined here.)

Technical courses are so-called "normal" forms of school education: in other words, they are systematic (complete at their level) and regular (part of the "normal" progression through the various stages of the education system). Training colleges courses and apprenticeships are, to use the same terminology, "special" types of school education, i.e. they provide systematic training (for the reasons given), but they are not regular (because they do not form part of the "normal" progression through the education system). (Both contrast with the modalities of extra-scholastic training, which is neither systematic nor regular but rather selective and unconnected, since it does not constitute a complete training cycle per se nor does it fall within the "normal" progression of the training system. This type of training is not being examined here either). Some of the terminology we have just used exists alongside another terminological framework adopted under legislation in October 1991, which considers technological courses and vocational school courses as "vocational training within the education system" and the apprenticeship system as "vocational training on the employment market", the former being the responsibility of the Ministry of Education and the latter that of the Ministry of Employment and Social Security. Essentially, however, these differences in nomenclature do not affect the systematic nature of the types of training they describe, which besides explicitly claim a common conceptual framework in the above legislation.

Technological courses, training colleges and the apprenticeship system have identical entry conditions (the 9th year of schooling or equivalent, grade II at a training colleges or in an apprenticeship), the same training structure - although names are sometimes different (general or socio-cultural training, scientific training, technical/technological training, technical/practical training) and the number of hours may vary, the average duration is similar (more time is spent on training during the three years at training colleges than at three year technological courses as more time is given to simulated practice, and in the four years of some apprenticeships more time is spent on practical work).

The aim of technological courses, of which there are only eleven mainly covering the major technologies, is to put over an overall idea of the development of (and work in) the organizations. Giving the option of a very limited number of technological courses is equivalent to giving precedence to a sound, scientifically well-based culture through large areas of technology utilized in various ways by the different economic activity sectors, to the detriment of the chance of acquiring specialization early in fairly limited fields of application, therefore running the risk of letting those with these specializations soon being deprived of the latest skills. The decision to limit the teaching of vocational skills in secondary courses within normal education to the major technologies is equivalent to giving priority to the acquisition of procedures rather than content, in so far as more value is put on the development of skills, attitudes and reactions associated with a technology - encouraging continual autodidactic investment in training itself (learning how to learn) - rather than on the initial acquisition of skills and knowledge in very specific areas, which may be out of date on the medium or even short term basis.

Each of these courses is a "common trunk" at the end of which are different "terminal specializations". The "common trunks" give the courses their identity; they are their scientific/technical bases, supporting "specializations" which may or may not be contemporary, since a "specialization" learnt at any given time may ultimately become out of date. These "terminal specializations" are equivalent to different areas of application of the basic technology of the "common trunk" in the various economic activity sectors: chemistry for instance, a basic technology, has various applications in areas such as oil, the food industry or tanning, while the areas of application of administration, another basic technology, will be secretarial work, accountancy or taxation. The "terminal specializations", which must not destroy the vital "common trunks", may be organized in different ways which may be combined, as they do not exclude each other: a) in the form of subjects in the course curriculum, b) in the form of "work experience", again during the course, c) in the form of "terminal training periods" after the course, or coinciding partly with its completion.

Technological courses, which are provided nationally on the initiative of the Ministry of Education, are generally spread across all secondary schools. The option of a specific "terminal specialization" is, however, the responsibility of the schools themselves and, apart from their traditions, initiative and resources, depends on their ability to mobilize the appropriate people and organizations in their local communities and on their requirements in employment market terms. This organization of secondary technical courses, also subject to a process of validation which, being "imported" from training colleges, will later be structured, also responds to the requirement that the courses must be attractive, therefore competitive with general secondary courses primarily designed for continuing studies; both types of courses - not being two distinct routes - must be provided by all secondary schools.

There are now about 150 training college courses! They have been provided to satisfy the specific requirements of regional and even local employment markets as a result of which they are supposed to be set up. In spite of the fact that these colleges receive financial, technical and pedagogical assistance from the Ministry of Education, they are the result of initiatives by the public, by employer organizations, trade unions or professional associations, local authorities, social welfare institutions and other bodies. Although the curricula includes constraints relating to scientific and, in particular, general training components, the promoters have considerable liberty over the technical training content, which accounts for 50% of the curriculum, and it is here that the diversity of training starts. Diversity is also possible since attendance at regional or local courses is generally low and since this type of training is provided alongside national secondary technical education, which, as we have seen, covers a far wider area.

Before technical courses and courses provided by training colleges are made available to the public, they are submitted to the validation referred to earlier. This involves testing them on people, organizations and institutions representing the various area of training and vocation and/or activity sector (employers, professional associations, higher level training institutions, organizations representing the activities and other bodies). A brochure is prepared for each course projected or offered, written to be understood by both those experienced in training and those who understand employment. The brochure a) indicates the area, grade and adjacent grades of the course ("training reference"), b) identifies the jobs for which it is to provide skills ("job reference") and c) forecasts job prospects ("employment reference"). These initiatives are of course still at a very early stage, therefore have no background and are still far from established. They are, however, generally well accepted, as they have come up to expectation and achieved their objectives, which were both to test the relevance of course training profiles in relation to the skills that they are designed to teach and to publicize these training profiles together with lists of potential employers, holders of skills and higher level training institutions, so as to facilitate entry to the employment market or to continuing training on a short, medium or long term basis.

Apprenticeship courses provide a type of response different from training college courses with which, owing to their specific nature, they are for the most part comparable. Thus, while in the case of training colleges the balance between training provided and labour required is achieved principally on a regional or local basis, in the case of apprenticeship this balance is sought principally within the economic activity sector. Besides, this is a concern which, apart from having innate legitimacy, is also justified because the apprenticeship system was to a certain extent created to provide grade II training, where the logic of economic activity sectors possibly predominates. This logic naturally now "contaminates" grade III training, which does not conform to it as easily unless it is a continuation of grade II training, as is often the case. The balance sought in training colleges is obtained by means of the validation process referred to earlier. In apprenticeship it is decided by special technical committees, then sanctioned by a national body such as a committee of a tripartite nature (the social partners and the Government).

Training colleges and the apprenticeship system are also equally involved in the trial, conducted separately however, to develop a modular curriculum - which is still at an early stage, but appears to have at least two important potentials. In initial and complete training on the one hand - originally provided by training colleges and apprenticeship - the modular structure may facilitate the adaptation of training profiles to employment market requirements, permitting flexibility and great speed in linear curriculum development. On the other hand, in recurring training designed for persons with a wider range of academic qualifications, vocational and life experience - which can also be offered by training colleges and apprenticeships - the modular structure will enable training profiles to be designed so that they can teach equivalent skills but at a learning tempo more suited to individuals.

It is not possible here and now to form a worthwhile opinion on each of the subsystems, especially from the perhaps restricted point of view of their ability to teach what is intended, i.e. intermediate skills which can actually be used on the employment market, since at present there are only holders of secondary education diplomas, but from technical/vocational courses on whose assessment is also based the structure of the new technological courses, which are derived directly from them following substantial restructuring. Full assessment of both training colleges and apprenticeship is currently being carried out, and it is universally recognized that on-going systematic observation of all types of secondary training is essential. These forms of training probably require modification - even quite considerable reform. However, it appears to be expected that potentials will be revealed which would ensure a beneficial diversity and guarantee the complementary nature of the training available, the network of which will nevertheless need to be adapted in order to take into account geographical and demographic variables, sectors of economic activity and areas of training. This is probably the most critical variable. There will certainly be a place for secondary training at national, regional and local level for those areas where vital practice is lacking and for those where simulated practice is sufficient, for those from individual sectors and those from more than one sector. It should not be forgotten that results must be assessed not only for immediate employability but also for job mobility and progress in careers and even availability and desire for more thorough initial training.

Initial vocational education in the Netherlands: current developments

This paper outlines the Dutch system of vocational education and describes recent and current policy developments, looking particularly at the various forms of initial training and at moves to improve coordination between them. The main focus is on mainstream provision at colleges of intermediate vocational education and on the apprenticeship system (the dual training path). Other forms of training to a comparable level are discussed incidentally.

Dutch vocational education in brief

The Dutch system of vocational education has three main components, college-based courses, apprenticeships and continuing training.

■ *Mainstream vocational education in schools and colleges*

Aside from the prevocational (LBO) schools for the 12-16 age range, there are institutions at the upper secondary (post-16) level (intermediate vocational education, MBO) and at the higher level (higher vocational education, HBO, and university education, WO).

J. Frietman

is a member of the academic staff of the Education, Labour Market and Industry Research Department of the Nijmegen Institute of Applied Social Sciences (ITS).

We look first at vocational education at upper secondary level. Initial in nature, it prepares youngsters for agricultural, technical, business and caring occupations and exists in both a two-year variant (shorter intermediate vocational education, KMBO) and a full-length (three- or four-year) variant. Depending on the nature and duration of the course students may qualify as junior craftspersons, autonomous craftspersons, junior managers or independent entrepreneurs. Courses are largely college-based, with periods of work experience on employers' premises; these work placements vary in length from a few weeks to a year.

Vocational courses at universities and colleges of higher vocational education prepare students for senior (managerial) positions.

■ *Apprenticeship system* (cf. the German dual system)

The apprenticeship system, which prepares trainees for a wide range of occupations and occupational sectors, operates at three levels, primary (elementary), secondary (advanced) and tertiary (higher). The primary courses lead to qualifications at junior-craftsperson level and the secondary to autonomous-craftsperson level; the tertiary courses go a step further, preparing students for independent entrepreneurship or management positions.

It is above all its dual nature that marks off the apprenticeship system from college-based initial vocational training: at its heart is the principle of "learning while you work".

Primary apprentice training, which generally lasts two or three years, involves practical work experience (normally for four days a week) supplemented by one day a week of off-the-job education and training. The practical component is the core of apprenticeship courses, and developments in industry are thus a major determinant of training in terms of both quantity and quality: both the number of training placements available and the content and quality of the practical component depend primarily on economic, organizational and technical developments in employing organizations.

■ *Continuing training*

Continuing training is outside the mainstream college-based and apprentice-training systems; its purpose is to update or upgrade participants' knowledge and skills or to prepare them for occupational change and thereby to meet the training needs of specific sectors or firms. It is generally related to particular jobs.

Courses may be developed and delivered by sectors of industry (sectoral organizations and/or trade unions) or individual firms or by commercial or non-commercial training agencies. In some cases training initiatives derive from provisions in collective agreements between central employers' organizations and trade unions.

Relationship between the different forms of post-16 vocational education

This section looks at the relationship between intermediate vocational education in its full-length (MBO) and short (KMBO) forms and the apprenticeship system.

The roots of shorter intermediate vocational education (KMBO) go back to the mid 1960s. When the Secondary Education Act 1964 came into force it became clear that there was a gap in the second stage of secondary education on the vocational side: for many youngsters the requirements for admission to a full MBO course were too stiff, while the shortage of work-and-training places in industry meant that often they were unable to enter an apprenticeship course. KMBO courses thus filled a "gap in the market" and as such helped create a coherent and integrated system of vocational education at upper secondary level in the Netherlands.

Like primary apprenticeship courses, KMBO courses lead to qualifications at junior-craftsperson level, but there is little if any movement of students between the dual and the college-based systems. There is also little movement between the apprenticeship system and full-length MBO courses, either during or at the end of training.

Movement within the MBO system, from the shorter to the full-length courses, is in theory more likely, but in practice both horizontal and vertical transfer is rarer than had been expected, probably owing to the differences of level.

As the next section will show, the relationships between the different types of course (MBO, KMBO and apprenticeships) and ways of improving their coordination are among the central themes of the current debate on the shape of vocational training in the Netherlands.

Policy measures relating to intermediate vocational education (MBO) and the apprenticeship system

This section outlines the main policy measures aimed at solving problems at the interface between education and employment and at responding to industry's changing needs.

Measures concerned with intermediate vocational education (MBO)
Sector formation and renewal

Immediately following cabinet agreements reached in 1986 on the structure of MBO, a programme of "Sector Formation and Renewal in Intermediate Vocational Education" (SVM) was launched with the aim of creating an expanded and differentiated system of vocational education at the intermediate level through the formation of sectoral colleges and the renewal of course provision.

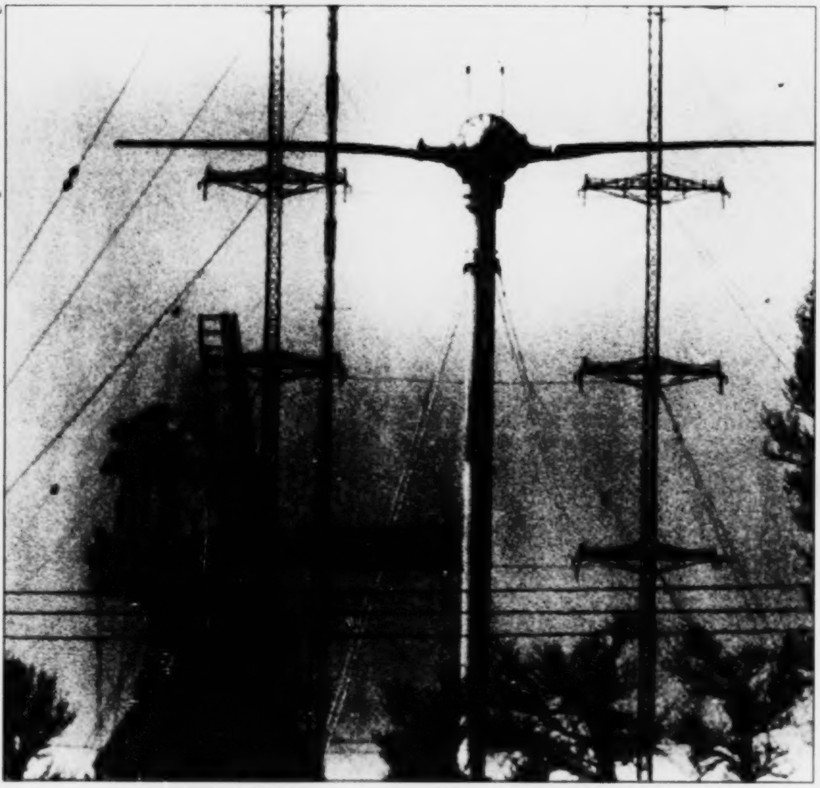
The process of sector formation, which involved college mergers and the creation of larger institutions, is virtually complete, and there are now 140 sectoral or multisectoral MBO colleges.

The completion of this part of the programme was the starting signal for its second phase, the renewal of course provision. Research into the way MBO colleges have given shape to course renewal has found among other things that most have launched renewal activities (Pelkmans and De Vries, 1991), mainly involving improvements to the intake, a movement towards modular and flexible course structures, the substantive integration of the shorter and full-length courses and improvements in yield (i.e. student success rates).

Sectoral consultations

National consultations between the worlds of education and employment at the level of the various sectors of industry began in the course of 1988 with the recognition of the Sectoral Training Councils (BOOBs). The main stimuli for the establishment of consultative procedures at sectoral level were as follows:

- the concept of vocational education and training as a joint responsibility of employers, unions, government and educational institutions. This was a theme of the Open Discussion prompted by the recommendations issued in the early 1980s by the Wagner Committee. These recommendations were concerned among other things with removing mismatches between training and the needs of industry.
- the government's 1986 policy document on the development of occupational profiles and curricula in vocational education. This paper set out the infrastructure, in the form of sectoral consultative bodies, for the development from occupational profiles agreed by employers and unions to training profiles which could serve as the basis for curriculum development.



Peter Steinhagen/Süddeutscher Verlag

- the paper on sectoral consultations between the worlds of education and employment, in which a working party from the Secondary Education Consultative Forum (OOVO) made proposals for the number of types of consultation, the composition of consultative bodies, the apportionment of the available budget and so on.

The purpose of sectoral consultations is to ensure that training courses for a particular industrial or occupational sector meet employers' needs. Educational institutions and the two sides of industry work together on this task through the government-recognized Sectoral Training Councils mentioned earlier.

The Councils' output takes the form of documents setting out learning targets - what students are expected to know and to be able to do on completing their courses - which provide the foundations on which colleges base their courses.

Dualization

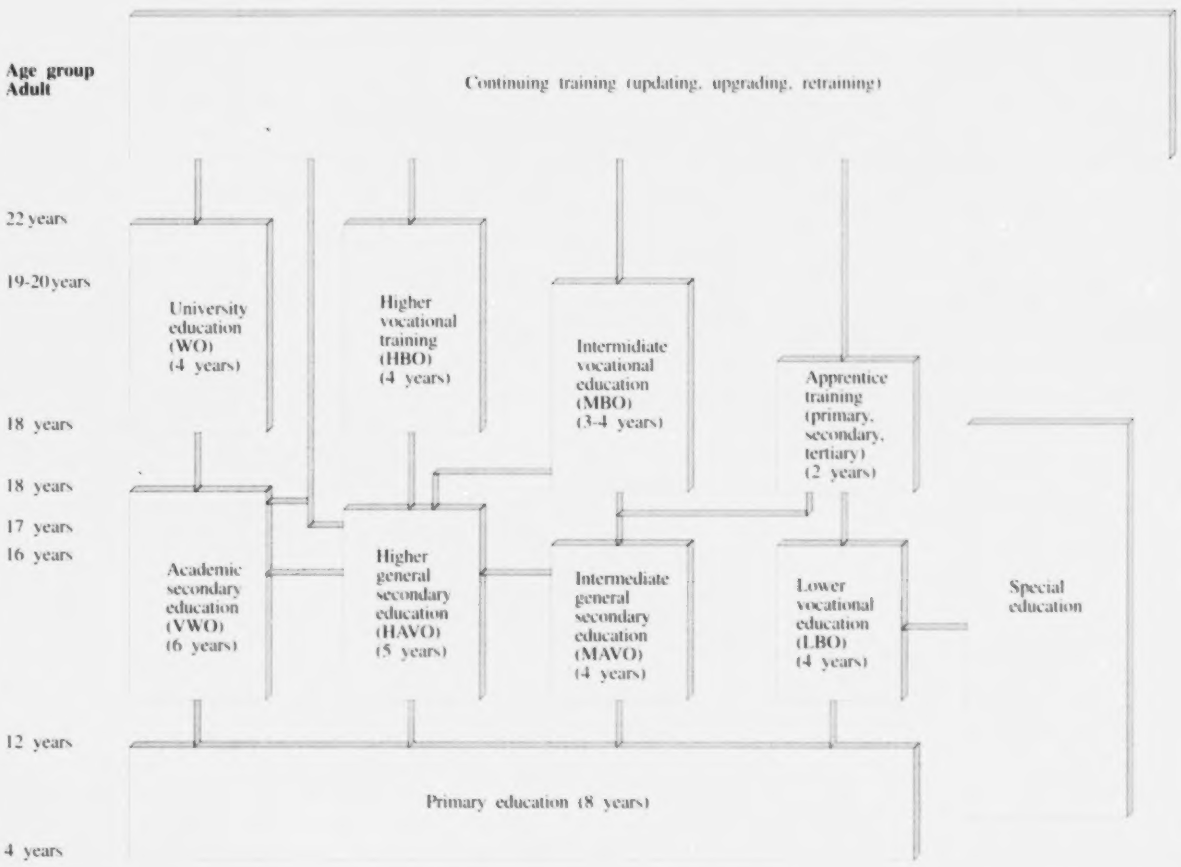
In its final report, issued in May 1990, the Rauwenhoff Committee (officially the "temporary advisory committee on education and the labour market") recommended a number of radical changes to the content, organization and funding of vocational education. It also proposed changes to the relationship between colleges, firms, government and students and in the various parties' respective responsibilities, with the latter being clearly laid down.

Among the Committee's central proposals was that the entire vocational-training system be dualized, reflecting its belief that a more intensive interaction between vocational education and practice would help minimize mismatches at the interface between training and work. The Committee also felt that dualization would raise educational standards and student success rates. While the recommendations covered vocational education as a whole, the initiatives now being developed relate mainly to the dualization of the MBO sector.

New legislation

On 1 August 1991 the new Vocational Training Act (WCBO) came into force. Governing training services provided to firms etc., it relates to college-based training within the apprenticeship system (BBO), full-time and part-time intermediate vocational education (MBO) and institutions providing "specific training" (by which is meant training outside the official apprenticeship system, post-MBO courses, training activities run by employment of-

Figure 1 - The Dutch education and training system


Age group
Adult
Continuing training (updating, upgrading, retraining)
22 years
19-20 years
18 years
18 years
17 years
16 years
12 years
4 years
University education (WO) (4 years)
Higher vocational training (HBO) (4 years)
Intermidiate vocational education (MBO) (3-4 years)
Apprentice training (primary, secondary, tertiary) (2 years)
Academic secondary education (VWO) (6 years)
Higher general secondary education (HAVO) (5 years)
Intermediate general secondary education (MAVO) (4 years)
Lower vocational education (LBO) (4 years)
Special education
Primary education (8 years)

fices, private training agencies and firms' internal training). The new act thus encompasses more than just mainstream MBO provision.

The purpose of the Act is to improve coordination between training services of different types, to enable the existing training infrastructure to be used more flexibly and to enhance the relevance of training provision to the needs of the labour market.

Measures concerned with the apprenticeship system

Strengthening the system

Since the start of the 1980s we have seen increased policy efforts on the part of government, both sides of industry and educational institutions aimed at strengthening the apprenticeship system. This was seen as one of the keys to solving the problem of mismatches between training provision and industry's needs. Against the background of worryingly high youth unemployment and the potential or actual erosion of the apprenticeship system's training capacity, the first main goal jointly endorsed by government and industry was a rapid expansion of the number of practical-training places.

Aside from the "great exchange" between government and industry that marked the Open Discussion - greater influence for industry on advisory bodies for vocational education as a whole, coupled with an expansion of training capacity for the practical component of the apprenticeship system - a strengthening of the system was seen as bringing a double benefit. On the one hand, the dual nature of the apprenticeship system would ease young people's transition from school to work and thereby help cut youth unemployment; on the other, an increase in the number of practical-training places in the apprenticeship system would help meet industry's future needs for skilled workers.

The most obvious result of these endeavours was the doubling, to over 50,000, of the intake of youngsters into elementary apprentice training between 1982 and 1987. Another was a new diversity in practical-training places: recent research has found that in addition to the traditional arrangement of on-the-job training on the premises of a single employer four other variants can now be distinguished, depending on the extent to which the practical component is tied to the production process itself or to an individual employer (Frietman, 1990). Almost thirty percent of all new elementary-level trainees are now covered by arrangements where

Regina Bermes/laif

- practical training is given in more than one firm on a rotating basis,
- part of the practical training takes place off the job, i.e. outside the production process itself,
- rotation between two or more firms is combined with supplementary off-the-job training, or
- all practical training is given off the job, which thus replaces on-the-job training.

Empirical research has shown the different variants, including the traditional arrangement, to be equally effective in terms both of the proportion of trainees successfully completing their course and of the proportion finding employment thereafter (Frietman, 1990).

Development Plan

The apprenticeship system's development was given a new or extra impetus by the policy statement issued in 1988 under the title "The New Development Plan for the Apprenticeship System". At the heart of the proposals is a change in the policy framework for development and renewal; the intention is that activities concerned with the system's development and renewal should take place on a more planned, effective and goal-directed basis. In future national bodies will draw up multi-year policy plans and, in conjunction with colleges, annual operational plans. The various activities will be fostered and coordinated by a body with the name Apprenticeship Project Management (PML).

The purpose of the development plan is to give greater recognition to the educational character of the apprenticeship system and to take greater account of its national sectoral structure. In this framework the central tasks laid down for the various sectors of the apprenticeship system are as follows (PML, February 1990):

- to ensure an adequate intake,
- to promote innovation and flexibility in training and examination syllabuses,
- to improve trainee success rates, and
- to promote positive action for particular target groups.

The key issue throughout is the need to ensure that industry provides enough practical training places, of a decent standard, for all groups.

These various developments in the apprenticeship system can be viewed as the outcome of the policies developed and implemented in the 1980s and as such are relevant to the prospects for policy in the 1990s. At least three other factors are important in this connection.

First, the late 1980s brought a marked shift in the pattern of supply and demand on the "market" in practical-training places. Since the lower vocational (LBO) schools for the 12-16 age group take the youngsters who remain when places in the academic and general secondary schools are filled, they have borne the brunt of the downturn in overall pupil numbers, and since the apprenticeship system is traditionally the main "customer" for LBO-school-leavers, it too has seen a sharp drop in intakes. This factor, coupled with economic recovery, has gradually transformed a shortage of training places into a shortage of trainees.

Second, the educational and employment position of certain groups - immigrants, women, the disabled, youngsters who have failed at school - remains worrying.

Finally, there are continuing indications of mismatches between vocational education and practice as a result of developments in product/market combinations, rapid product and process innovation, and changes in the organization of work.

Conclusions

There is increasing recognition in the Netherlands of the need for better coordination between the different routes through vocational education, thus facilitating horizontal and vertical movement between the various types of provision. This would serve two purposes.

First, the education system's yield (the proportion of youngsters successfully completing courses) would be improved. The failure rate in Dutch vocational education is relatively high, and better coordination between the different training types would improve the position in that youngsters who failed in one type could more easily switch to another.

Second, the extent of mismatches between education and employment would be reduced, since a coordinated system can respond more easily to industry's changing quantitative and qualitative needs.

Improvements at the interface between the worlds of training and work are currently being sought mainly by giving them joint responsibility for vocational education through sectoral consultation and dualization. The notion is that mainstream vocational education needs be more closely geared to employers' requirements (though these are not always easily determined). The danger of this approach is that the acquisition of occupational skills may be overemphasized, making vocational education excessively industry- or job-specific. To avoid this happening we must ensure a proper balance between the general and vocational elements in vocational education, implying among other things a recognition of the social and cultural function of vocational education, an appropriate distribution of responsibilities between employers, unions, government and educational institutions, and the right relationship between national and regional training objectives.

The last point concerns the structure of training and training objectives. The two types of vocational education at secondary level - intermediate vocational education in both its full-length (MBO) and shorter (KMBO) forms and the dual apprenticeship system - are coming to resemble one another more closely. As parts of the MBO/KMBO system are dualized we may see the development of a system offering a choice between college-based and dual training at all levels, from junior craftsperson to independent entrepreneur.

The current trend towards dualization could mean that only a dual variant remains for certain courses. This is most likely in the case of KMBO courses. Given the background to the introduction of these courses, outlined earlier, this is not necessarily entirely desirable. We must take care in this connection that the baby is not thrown out with the bathwater.

Manfred Vollmer

Bibliography

Frietman, J. (1990). De kwaliteit van de praktijkcomponent in het leerlingwezen (The quality of the practical component of the apprenticeship system). Dissertation, Nijmegen, Institute of Applied Social Sciences (ITS).

Hövels, B. (1985). Arbeidsorganisatie in het leerlingwezen (Employers in the apprenticeship system). The Hague, Ministry of Employment and Social Security.

Ministry of Education and Science (1986). Beroepsprofiel- en leerplanontwikkeling beroepsonderwijs (The development of occupational profiles and curricula in vocational education). oetermeer.

Ministry of Education and Science (1988). Nieuw ontwikkelingsplan leerlingwezen (New development plan for the apprenticeship system). oetermeer.

Pelkmans, T., B. de Vries (1991). De V van SVM. Inventarisatie van vernieuwingen in de SVM instellingen voor middelbaar beroepsonderwijs (1990-1991) (Educational renewal in the reform of intermediate vocational education). Nijmegen, Institute of Applied Social Sciences (ITS).

PML (1989). De vernieuwing van het leerlingwezen. Stand van aken en perspectieven (Innovation in the apprenticeship system. Current position and outlook). The Hague, ProjectManagement Leerlingwezen.

PML (1989). Naar een andere aanpak van de vernieuwing (Towards a new approach to innovation). The Hague, ProjectManagement Leerlingwezen.

Rauwenhoff Committee (1990). Onderwijs-arbeidsmarkt: naar een werkzaam traject (Education-labour market: towards an effective pathway). Alphen aan den Rijn, Samsom H.D. Tjeenk Willink.

Initial technical and vocational education and skill formation in Britain

This paper describes the main routes followed by young people in Britain into the labour market and the part played by vocational education and training in structuring those routes. It then examines the ways in which these routes and the system of vocational education and training are being transformed by the forces of economic and political change. These are seen to be undermining the traditional apprenticeship based system and replacing it with one based more firmly on company specific forms of training. It concludes with a brief look at some of the strains within the system.

It is important when trying to understand the British system of initial technical and vocational education that the various forms of vocational and technical education are conceptualized from a labour market perspective. Each of the main qualifications that are available plays a crucial role in structuring the pathways or routes that young people follow into the labour market. Therefore, if we are to understand their function in the system as a whole we need to understand the part they play in opening and closing off the various pathways that are available to young people in contemporary Britain.

David N. Ashton

is Professor of Sociology at the University of Leicester and Co-Director of the Centre for Labour Market Studies.

Routes into the labour market

We start by providing a brief description of the main routes young people follow through the system of technical and vocational education in terms of their destination in the labour market, indicating the nature of the links to the system of general education. We identify five main routes, of which four involve forms of secondary technical and vocational education. These are as follows:

- through secondary school having completed their general academic education without any further vocational or technical education and directly into unskilled/semi-skilled jobs at 16 years. If no jobs are available and the young person cannot obtain a place on the Youth Training Scheme (now known as Youth Training), these young people enter unemployment. These are the young people who leave school at the earliest opportunity and who either do not take their leaving examinations or perform badly in them. They enter low skilled jobs in construction, hotels and catering, transport and distribution, which often provide little or no further training or vocational education (Ashton, Maguire and Spilsbury, 1990). It is difficult to provide precise estimates of the proportions following this route because the routes as depicted here do not correspond with official statistics, but the evidence suggest it is approximately fifteen per cent of the age group. [1]

- through secondary school and the Youth Training Scheme at 16 into the same low skilled service sector jobs as those following route i) or alternatively into lower level clerical jobs. Approximately 25 per cent of the age group follow this route. Once again, these tend be the young people who perform badly in their examinations and leave with few or no widely recognized qualifications. However, instead of seeking entry to jobs, they accept a place on Youth Training (YT). Although they do undertake some formal training on the programme only 43 per cent of YT leavers in 1990 obtained a qualification (SEN, 1991). For a minority of this group who enter YT with larger employers, where the training is linked to an internal labour market, this can lead to continuing employment after YT. For the majority, who find placements with smaller employers, this is not the case. They have either to look for alternative employment or face a spell of unemployment.

Those who follow routes i) and ii) are at the greatest risk of spells of unemployment. However, those who have experienced YT have a greater chance of avoiding unemployment than those who follow route i) (Roberts and Chadwick, 1991)

- through secondary school and/or further technical education into a formal apprenticeship or firm specific training at 16 or 17 years and then into skilled work in the manufacturing or service sector. Those who follow this route (estimated at under twenty percent) tend to perform better in their school examinations and may also obtain some vocational qualifications. On leaving school they either enter an apprenticeship/traineeship directly or indirectly through the YT scheme.

- through secondary education and further technical and vocational education into firm specific training in white collar jobs at 17 or 18 years: a route followed by somewhere in excess of twenty percent of young people. These are the ones who perform well in their academic examinations and proceed to study either A levels or undertake a more vocational course leading to a recognized vocational qualification in an intermediate level skill. They enter white collar or technician jobs with many receiving further training within their employing organization.

- through higher education into professional and managerial occupations after age 21. These are the top twenty per cent of high flyers who continue following academic courses into higher education. Those following vocational courses such as engineers and doctors move straight into their professions, others who study arts or social science tend to stay on in higher education for further vocational training before entering either the professions or management. The majority will receive further firm or occupationally specific training with their employing organization.

The proportions following these routes are subject to variations determined largely by differences in national and local labour market conditions. During the last decade the proportions following routes iv) and v) into the white collar, managerial and professional occupations have been increasing. Those following route iii) into skilled manual work and route i), moving directly into operative jobs and lower level service sector jobs, have shown a marked decline, while those following the YT route ii) have increased.

In the more affluent parts of the country the proportions who follow route i) and iii) and enter directly into the labour market on leaving school are much higher than those who enter the labour market via YTS. In the more deprived parts of the country, this situation is reversed. This is partly because parts of the youth training scheme, but not all of it, are seen by young people as less desirable than a full-time job (Banks et.al. 1992; Roberts and Chadwick, 1991).

The transformation of training provision in Britain

Traditionally, the vocational education and training system has been largely geared to preparation for occupational labour markets through the apprenticeship system. That is, young people were trained through a combination of off-the-job courses in local colleges of further education and practical work experienced to acquire transferable, occupationally based skills. These were primarily the male dominated trade skills in the engineering, construction and transport industries. The apprenticeship was similar to the German apprenticeship system but less tightly controlled and regulated. For example formal off-the-job training was not always compulsory and not all young people entered into an apprenticeship agreement with their employers.

In the growing service sector there has been less reliance on this form of training and more reliance on internal labour markets to provide the basis for skill formation. Here company specific training was more common, both at the level of semi-skilled jobs in hotels and catering and in the more prestigious white collar jobs in banks and financial institutions. Overall the traditional system provided some form of qualification for about two thirds of the labour force, but one third remained unqualified (Ashton, Green and Lowe, 1992).

The last decade has witnessed major changes in the structure of the labour market which are having a significant impact on this system of vocational training. These changes largely stem from the growing intensification of international competition associated with the globalization of

Sturrock/Network

product markets (Ashton, Maquire and Spilsbury, 1990). They are as follows:

- the decline of manufacturing industry which in turn has led to a decline in demand for apprenticeships and trainees. These fell from a total of 243,300 employees in manufacturing in 1965 to 55,700 in 1988 [2].

- the introduction of new technology and pressures for more flexible use of labour have led companies to enhance their workers' company specific skills and introduce an element of multi-skilling to craft workers. This has further undermined the old apprenticeship system and led to a concentration on the development of company specific skills and hence of job specific, task oriented training.

- the demands of international competition and the impact of new organizational forms introduced by USA and Japanese companies have encouraged firms to establish more effective internal labour markets. These provide the workers with some career opportunities and form the basis for firm specific skill acquisition as companies seek to retain their more highly skilled labour.

- at the same time that companies were subject to these pressures, politically introduced changes led to the decline of the institutional supports for the apprenticeship system. The Industrial Training Boards, which had supported the modernization and enhancement of apprenticeship system in a number of industries, had their powers reduced and were eventually abolished.

- perhaps the major change during the last decade has been the continued growth of the service sector. This has tended to shift the balance of vocational preparation away from training for occupational labour markets (associated with the traditional manufacturing industries) toward more of a concern with company specific training for firm internal labour markets. The result has been the continuous decline of the apprenticeship system and the growth of in-company training as measured by the Labour Force Survey. For example, the proportion of employees and self employed receiving job related training almost doubled between 1985 and 1990 (LMQ, 1992).

Denis Doran/NETWORK

It was against the background of these changes and very high levels of youth unemployment that the Youth Training Scheme was introduced in 1983. The scheme was initiated in order to provide some training and work experience for young people seeking their first job, most of whom, as we have seen, enter semi-skilled or unskilled jobs. However, some companies did use the scheme to underwrite funding for the first two years of the apprenticeship training. Thus, some YTS/YT schemes feed into the remaining apprenticeships with those who enter staying on for a further year to complete their training. This has meant that the Youth Training scheme became stratified, with some YTS/YT places leading to apprenticeships or extended training and others which only lead to low skilled jobs in the service sector.

Certification and assessment

Unlike many other European societies, legal regulation does not play a major role in determining vocational educational provision in Britain. Provision has been left to the actions of employers and especially non-statutory organizations.

This has resulted in the existence of over 300 different authorities who award or validate technical and vocational qualifications. One consequence of having so many, sometimes competing, authorities, has been to cause confusion among young people and employers about the scope and meaning of the various qualifications. This in turn makes it difficult for young people to make informed decisions about how best to progress through the various routes. Thus, the routes through the system depicted above are not as clear cut in reality as they appear here, especially in the case of those following the routes into skilled manual and junior white collar work. For these two groups the type and level of qualification obtained post 16 can play an important role in determining future opportunities.

During this last decade a major attempt has been made by various government authorities to shift the focus of initial vocational education and training away from norm referenced forms of qualifications, where the curriculum and standards have been set by the teachers and awarding bodies, toward a competence based system. This is one in which most reliance is placed on the demonstration of practical competence for the job rather than on the mastery of a syllabus which may or may not be relevant to the performance of the job.

The traditional system of vocational training was oriented toward the certification and assessment of apprentice, technician and commercial trainees. This meant that it did not provide for any form of certification for the unskilled and semi-skilled workers. In the course of their attempt to fill this gap through the YTS, the government became aware of the need to rationalize the system as a whole. This led to the creation of the National Council for Vocational Qualifications (NCVQ) whose remit is to reform the existing system of qualifications.

The aim of the reform is to accredit each of the existing vocational qualifications in terms of five basic levels. This will create one single system of vocational qualifications. The new qualifications are known as National Vocational Qualifications (NVQs). These NVQs are occupationally based and are intended to provide a qualification which will be recognized by employers thereby facilitating the transfer of occupational skills. However, because the qualifications consist of a series of separate components which have to be passed before full accreditation is given, the reform enables employers to provide only those components which are useful in their own internal labour market. Overall the NCVQ is spearheading an ambitious reform which still has to gain full acceptance among employers. If it is successful, it would enhance progression through all five of the routes depicted above as well as facilitating movement between them.

The other major innovation has been the introduction of Training and Enterprise Councils (TECs, known as LECs in Scotland) The TECs/LECs were recently introduced in an attempt to make the delivery of training more responsive to employer needs at the local level. The TECs are dominated by employers although other parties such as educational authorities and voluntary organizations are represented on their governing bodies. However, the TECs, of which there are over 80, are primarily concerned with the delivery of the two main government training measures, YT and Employment Training for adults (ET). As most of their funding is geared toward these programmes there is little scope to influence other forms of training which take place within companies. Thus, TECs are not expected to make a significant change in the extent to which training is firm specific as opposed to occupationally based. The major forces pushing toward development of more firm specific task based training are the pressures from international competition and the introduction of competence based assessment that we have detailed above.

Strains in the system

The introduction of competence based qualifications has tended to intensify the tension which always existed in the UK between vocational and the more prestigious academic qualifications as both are based on different philosophies. Academic qualifications are based on ideas of academic excellence and the facilitation of personal growth through a liberal education. Vocational qualifications are based more on occupation and job specific skills. The tension between the two systems has been intensified with the introduction of the new competence based NVQs which are seen to be even more concerned with practical skills than the more traditional vocational qualifications. These contradictory philosophies are inevitably creating tensions and problems in the institutions, notably the colleges of further education and tertiary colleges, responsible for delivering both sets of qualifications.

A further problem concerns the demand being made on the system by the continuance of high levels of youth unemployment. The decline in the demand for unskilled labour has reduced the opportunities for unqualified youth while at the same time the continuance of high levels of unemployment make the attempts by the unqualified to obtain a foothold in the labour market very difficult. As unemployment has risen there has been a tendency for young people to stay on longer in education, so that in 1992 more than 60 percent of young people stayed on in school beyond the age of 16. However, many continue to follow the first two routes and enter what are often precarious forms of employment in the secondary labour market, which offer few chances for training or progression.

Many of the jobs in this secondary labour market are extremely precarious and those who enter them are the ones most at risk of unemployment. In addition, some of those who seek direct entry to jobs at 16 often find themselves in a situation of chronic unemployment or subemployment. The latter occurs when the young person enters a job or a scheme and then finds themselves unemployed for a spell before returning to another precarious job or another government scheme following which there may be yet another spell of unemployment. This is creating a group, sometimes referred to as an underclass, who are confined to the margins of the labour market and increasingly marginalized from the wider society.

Conclusion

We have argued that there are powerful economic forces creating new demands on the British system of vocational education and training. These, together with other politically induced changes have weakened the traditional system of apprenticeship training and created a demand for more firm specific training. In response to these wider changes, some progress has been made in raising the level of post 16 participation in education. In addition, new forms of vocational education and training are being introduced through the NVCQ. However, in comparison with other advanced industrial societies, Britain continues to be characterized by a low level of achievement among its young workers and a growing division between those who enter secure employment and the sub-employed.

Notes

1) A similar, but more elaborate conceptualization of the routes to that discussed here is to be found in M. Banks, I. Bates, G. Breakwell, J. Bynner, N. Emler, L. Jamieson and K. Roberts, (1992) Careers and Indentities, Milton Keynes: Open University Press. For a discussion of the situation in Scotland see A. Furlong, Growing Up in a Classless Society: Transitions to Employment, (1992) Edinburgh: Edinburgh University Press.

2) These figures are derived from the Employment Gazette.

References:

Ashton, David., Malcolm Maguire and Mark Spilsbury, (1990) Restructuring the Labour Market: The Implications for Youth, London: Macmillan

Ashton, David., Francis Green and Graham Lowe (1992) 'Education and Employment in Canada and the United Kingdom', University of Leicester, Faculty of Social Science Discussion Paper

LMQ. Labour Market Quarterly, (1992) February, Employment Department: Sheffield

Roberts, Ken and Cerie Chadwick (1991), England and Wales Youth Cohort Study, Transitions into the Labour Market: The New Routes of the 1980s. A Study of Transitions 1984-87, Sheffield: Employment Department, Research and Development No. 65

SEN. Skills and Enterprise Briefing, 24, Employment Department Group, August (1991) Nottingham

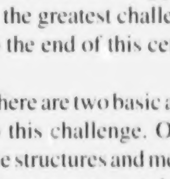
Brief analysis of the types of vocational training available in Portugal

In this article, which of necessity must be brief, the author attempts to examine some of the limiting factors and inconsistencies of the vocational training system. At the same time some reasons for the importance of this training are identified; these include basic training as a factor determining mobility and retraining. Reference is also made to i) the coordination and assessment of the training system and ii) the clarification of the different types of initial vocational training which are necessary to overcome some of the inconsistencies in the system.

1 - Introduction

1.1 Integration of Portugal into the European Community (EC), which took place in 1986 after a long process of negotiation, is the greatest challenge to the country up to the end of this century.

There are two basic aspects to the response to this challenge. One, modernization of the structures and mechanisms involved in the economy to enable the country to adapt as quickly as possible to a process of internationalization covering a wider area than prior to joining the EC and, the second, the changes in attitudes and conduct necessary in the various social, economic, cultural and political sectors of the country. The principal problem involved in the process of integration and modernization is the rapidity at which and extent to which internationalization of the Portuguese economy will take place. The economy will move from a position of isolation and protection, a characteristic of the closed society of the period prior to the oil crisis and the Democratic Revolution of 1974 to one of complete openness and integration into the Europe of the countries of the Community in a period of less than 20 years, accentuated by the creation of the Single European Market in 1992 and agreements at Maastricht in respect of Economic and Monetary Union, to be followed by political union in Europe, the model of which has yet to be defined in view of problems which will arise in each country as a result of the inevitable transfer of sovereignty which the process involves.



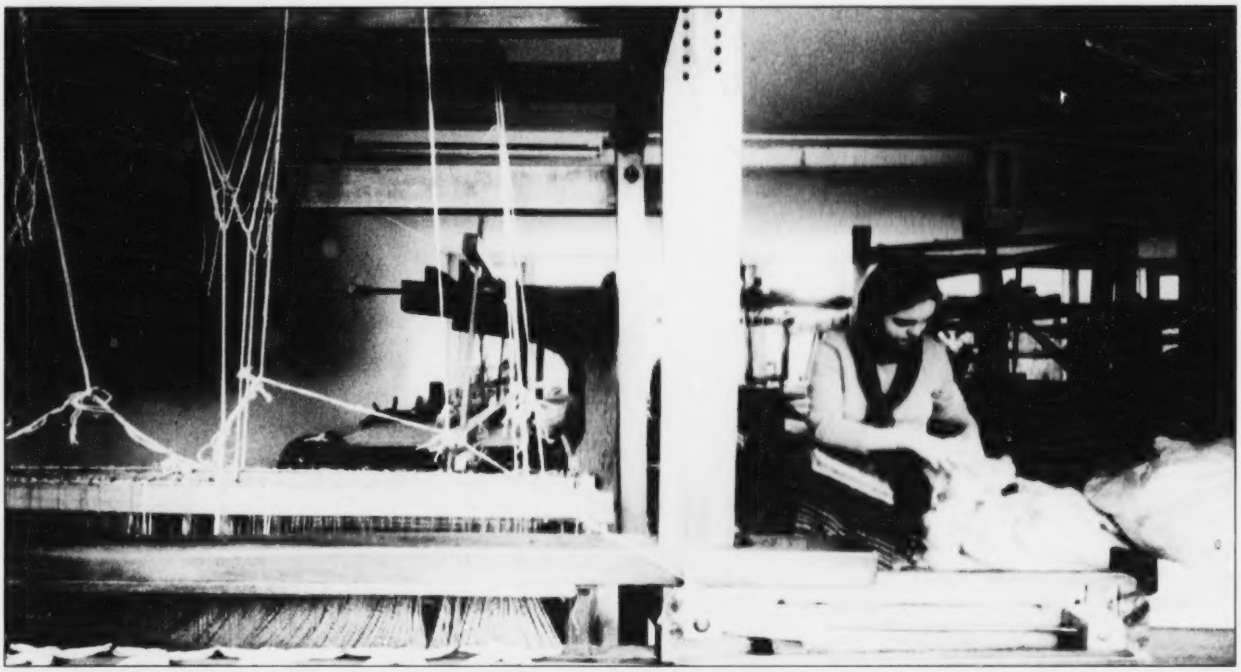
E. Marçal Grilo

Director of the Cooperation Department for the Gulbenkian Foundation since 1989

1.2 As a result of the country's backwardness compared to its Community partners, Portugal embarked on the process of integration, which led the Community authorities to approve special programmes and projects to update the various economic activity sectors, not only during the period before membership but, in particular, during the period immediately after becoming a member, i.e. from 1986 to 1992. These included PEDIP (Portuguese Industry Development Plan) and special aid for the agricultural and education/training sectors infrastructures.

The backwardness of Portugal and its lack of conformity compared with the other 11 countries is the result of a historical process too complex to be examined in this article, which led to the indicators which will be enumerated to enable the problems confronting the country in this transitional period to be more accurately identified. First, illiteracy - even today some 15% of those over 15 years of age are illiterate. Second, a very small proportion of the population have received intermediate or higher level training (about 3.6% of those of over 15 years of age in 1981 and about 3.2% of employees in 1989). Third, about 18% of the working population work in the primary sector, 34% in the secondary sector and 40% in the tertiary sector. Fourth, a GNP per head of no more than 5,800 US$, i.e. about 56% of the average GNP of the Community member States. In addition, the country is still very backward technologically, especially in the agricultural sector, in which in some parts of the country farming is still on a very small scale, and in some industries, such as textiles, the making of clothes and footwear, where manual labour is still extensively used; these industries form one of the principal components of the sector exporting manufactured goods and one of the most important sources of income for the country's trade.

1.3 Modernization of the various industrial sectors in Portugal is a complex process involving several factors and raising problems among which, owing to its importance for industry, is a hardcore of those relating to personnel management. Modernization of Portuguese industry is not therefore only a problem of investment, importing technology or reorganizing management, but principally involves a number of complex causes and effects based on the lack of skill of existing manpower and on the reduced capacity which



Anders/Stern

the country appears to have for training the labour essential for modernization.

1.4 The above reflections and the situation described indicate clearly that Portugal must take action in the education sector and vocational training systems, especially in respect of the younger age groups and those of school age, giving high priority to policies, programmes and funding for the education/training sectors.

Establishment of this priority, however, requires the study of a strategy involving primarily the introduction of regulatory mechanisms to provide a framework for the education and vocational training systems since there are at present obstacles and inconsistencies which could have an adverse effect on the normal functioning and development of the systems which provide initial vocational training for young people leaving the education system and commencing their working lives.

2 - The importance of basic training

2.1 Studies of manpower requirements, especially the quality of labour and jobs types, indicate clearly that Portugal still has significant shortages of intermediate specialists, middle managers and highly qualified staff and that the basic training obtained by young people at school is today a factor determining mobility and the conditions under which the retraining and updating of individuals take place throughout their working lives. This shows that sound basic education (provided in Portugal by the 9 years compulsory schooling) with emphasis on basic subjects must be one of the first priorities in the education/training sector policies.

This priority is being given in Portugal without any hesitation and this is probably the time to give some ideas on the objectives to be achieved and aims to be pursued in education, particularly in relation to introducing technology.

2.2 Consideration must be given to including introduction to technology into the 9 years compulsory schooling curriculum although, in our opinion, the study plan should not include "a compulsory specific subject of a theoretical nature or making technologies known just by using illustrated manuals or slides, the effectiveness of which as far as satisfying the objectives set out in the Basic Law of the Education System is concerned is somewhat doubtful".*

Consequently, technology will have to be introduced through the various subjects in the curriculum, especially natural and physical sciences and chemistry, in particular using activities through which projects will be undertaken in which students, individually or in groups, will be given specific questions on every day topics to be studied with the object of understanding the complexity and association of production and operating processes in essential areas in modern society, as well as the solutions found in each of these areas. In most cases they now require the use of a large number of techniques and technologies which students must realize are resources available to individuals and societies in the more developed countries.

Introduction to technology and training in technology during compulsory schooling must therefore be considered as part of the general training of young people, but with the principal aim of creating and developing attitudes towards problems which will lead naturally to the adoption and use of technology as a means available to, e.g.

- obtain a certain product;
- improve product quality;
- conserve the environment;
- develop a new manufacturing process;
- improve the diagnosis of disease;
- increase food production; or
- just to make the best use of existing resources.

Instead of introducing students to a limited number of different technologies through working in factories without providing any proper training, as was the practice several decades ago, the inclusion of introduction to technology in the compulsory education curriculum is a way of creating awareness and motivating young people who, after their compulsory 9 years schooling, will have to choose training of a different nature, which includes vocational training in technical and technological fields still covering a wide field but concentrated into a specific scientific area.

3 - Relationship between the training models

3.1 Initial vocational training in Portugal is provided through three sub-systems, two of which form part of the education system, which is the responsibility of the Ministry of Education through GETAP (Gabinete de Educação Tecnológica Artística e Profissional) and the third, which is one of the activities of the Institute of Employment and Vocational Training, which forms part of the Ministry of Employment and Social Security today.

These three types of training together may be considered as a diversified system which provides some internal competition since the bodies responsible in each of the Ministries concerned are proud of the advantages of each sub-system for young people, especially those who complete compulsory schooling or leave the education system early and wish to obtain training leading to grade II or III certificates.

3.2 An important aspect of these types of training is the complementary nature of and the relationship of objectives between each of the sub-systems.

Young people, families and enterprises must know the characteristics of each type of training and the reasons for training must be clearly defined before they can fully understand and appreciate the conditions for entry, objectives, methods, relevance and systems of certifying and, in particular, the State's responsibility and the guarantee it gives to the training provided.

Contrary to what has been said on many occasions in defence, it is thought that the sub-systems should not be identical; it is even suggested that each sub-system should offer incentives to attract specific target populations which for geographical or social/economic reasons have a tendency to be marginalized as far as vocational training is concerned. It appears clear however that the system overall, i.e. including all types of training, must be supervised and assessed by a body independent of the Ministries concerned so that it can be regulated, thus contributing considerably towards ensuring the maximum effectiveness and coherence of vocational training programmes. Great importance is given to defining an essential nucleus of technical and technological training areas into which the training courses and programmes which the sub-systems provide for those wishing to obtain vocational training before commencing working life will fall. Definition of this nucleus is a priority task which requires the establishment of a relationship with the employment market, particularly with centres which can identify future areas of training essential for the process of development.

3.3 Another aspect which should also be pointed out is the importance given to linking training mechanisms with structures responsible for employment matters and enterprises. The exchange of information and experience, consultation, identification of common objectives and harmonizing of the policies of the parties concerned with training and the principal employers of labour are ways of overcoming some of the obstacles with which the training sector has to contend today, particularly the considerable difficulty in matching training profiles with the requirements of enterprises, especially when the latter are involved in training in new technology or changing management and administration systems.

In the same way education and training in the financial and economic sectors are now being opened up and subjected to internationalization, which involves training structures holding a continual dialogue with the most important bodies concerned not only with economic activities, but also with employment, technology and innovation.

Anders/Stern

4 - Inconsistencies in the system

4.1 Training in technical and technological sectors in Portugal is essential for consolidating the process of structural change which the country will have to undergo to the end of this decade. These changes, which will without doubt take place in many economic activity sectors and in public administration, are particularly necessary in the agricultural sector and in the traditional industries, especially the textile, clothing and footwear sectors, which are together responsible for a large proportion of Portuguese exports and therefore have a special place in the economy of the country.

As enterprises are modernized, there will be more work for specialist executives and more skilled labour, leading to technical jobs becoming more attractive socially. As a result of the increase in jobs available, this type of job will have to be better paid and assigned higher grades in enterprise structures.

4.2 An analysis of the current situation in Portugal indicates that this anticipated social enhancement of technical jobs is at present not being accompanied by a social or cultural enhancement of courses provided for jobs of this nature. The reason must be the great University tradition in our country, which leads many young people and a large proportion of the country and society to put a lower value on courses and training which do not have the cachet of university, although the training provided by universities makes it difficult for young people to find employment compatible with their training, especially in the case of degrees in the humanities such as are currently taught at the majority of these institutions.

The consequences of this situation should be examined. They extend to higher education, where courses at polytechnic level continue to be unpopular compared to university courses, in spite of the fact that young students with degrees in technological subjects integrate much better into the employment market than graduates from university courses who have studied the humanities.

Priority must be given to overcoming this situation. It appears to us that in order to make technical courses more attractive it will be necessary to give young people information about courses, opportunities, job profiles etc. while they are still at school and also, and especially, by making the institutions which provide non-university technical courses leading to diplomas or grade III or IV degrees more attractive. Raising the status of these institutions and the training provided by them will have to be achieved by:

- improving links with enterprise sectors and respective public authorities;
- improving the quality of lecturers, monitors and other teaching and assistant staff by more careful recruiting and promoting; and.
- launching a campaign to promote the institutions and the training offered, emphasising the current situation in the other Community countries where training is provided by institutions and courses of the same type.

5 - Conclusion

The following conclusions have been drawn from the thoughts and ideas put forward in this article:

5.1 Vocational training in technical and technological subjects is a vital part of the process of transformation as the country's economy is undergoing forced internationalization and a market with quality goods to be sold at highly competitive prices is being created;

5.2 There is some diversification in the vocational and technological training system. It is accepted that the conditions under which each type of training making up the system function must be clarified;

5.3 Each of these types of training must be of a specific nature, have its own identity and be more attractive to those seeking training, although it is also recognised that coordination and assessment are required to ensure that the sub-systems are coherent, the courses are relevant and credit is given for the training received.

5.4 The unfavourable attitude of people to vocational training is giving cause for concern, indicating the need for a move to explain and provide information on the importance of jobs, even the indisputable social value of vocational activities with a strong technical or technological component;

5.5 Making courses and training of a more vocational or "vocationalizing" nature more attractive is also related to the grading of training institutions. The importance given to the conditions under which the recruiting and promotion of teaching and technical staff takes place should be emphasised;

5.6 Vocational training must take place on the assumption that young trainees have received sound extensive basic education, preferably as a result of the compulsory 9 years schooling with emphasis on basic subjects.

Gaumy/Gamma

---

* Parts of paragraphs 1.1, 1.2 and 1.3 were extracted from a document in which the author participated entitled "O Desenvolvimento das Estruturas de Informação e Orientação em Portugal" prepared by the Instituto Humanismo e Desenvolvimento.

* In Proposta de reorganização dos planos curriculares dos Ensinos Básico e Secundário - J Fraústo da Silva, M Tavares Emídio, E Marçal Grilo, Lisbon, July 1988.

The reform of vocational training in Denmark

A brief introduction to the principle of two-part training is followed by an introduction to the vocational committees, the local training committees and the training committees and their individual functions.

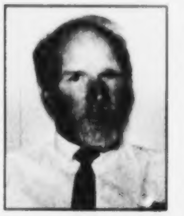
An introduction is then given to the cooperation between firms and technical schools.

Finally brief comments are made on work experience places and instruction compensating for work experience places.

Vocational training in Denmark is based on the *principle of two-part training*, which means that the major part of the training takes place in the firm. This has traditionally been known as the apprentice, which a long time ago meant that the master craftsman virtually had the power of life and death over the apprentice. I shall obviously not go into this, but instead base my description on the Vocational Training Act and the law on vocational schools which came into effect on 1 January 1991.

Two-part training is also fundamental to the vocational training system in the new law.

When the new law came into effect, substantial decentralization took place, firstly giving the advisory bodies at all levels greater influence and secondly assigning many of the decision-making powers to the vocational schools. It must be noted that the boards of the vocational schools assume full responsibility for the management and operation of the individual school.



Søren Pedersen

Principal since 1985.
Inspector since 1976.
Chairman of the Capital Region, Association of Technical School Managers.

The vocational committees

The vocational committees, which fulfil a key role, are given greatly increased influence at the higher level.

Local training committees

A new creation which is particularly important in relation to cooperation with industry are the local training committees.

Each school appoints one or more local training committees, which together must cover the training schemes offered by the school. The majority on each local training committee must be made up of representatives of the organizations which sit on the vocational committees concerned.

The main duty of the committees is to assist the schools in the work of planning the practical content of the instruction given. In addition, the committees are intended to advise the schools on questions relating to the training schemes at the school, and finally the local training committees in general must help to strengthen contacts between the school and the local labour market.

Management by objectives and limits

Management by objectives and limits replaces the detailed regulatory management that existed in the past. In areas of both finance and teaching, the Ministry in cooperation with the Vocational Training Council and the vocational committees will in future set objectives and limits for the activities of the schools. The school itself is responsible for the practical organization of the activities.

It is now around eighteen months since the new laws came into force, and this is probably a reasonable time to assess what has happened.

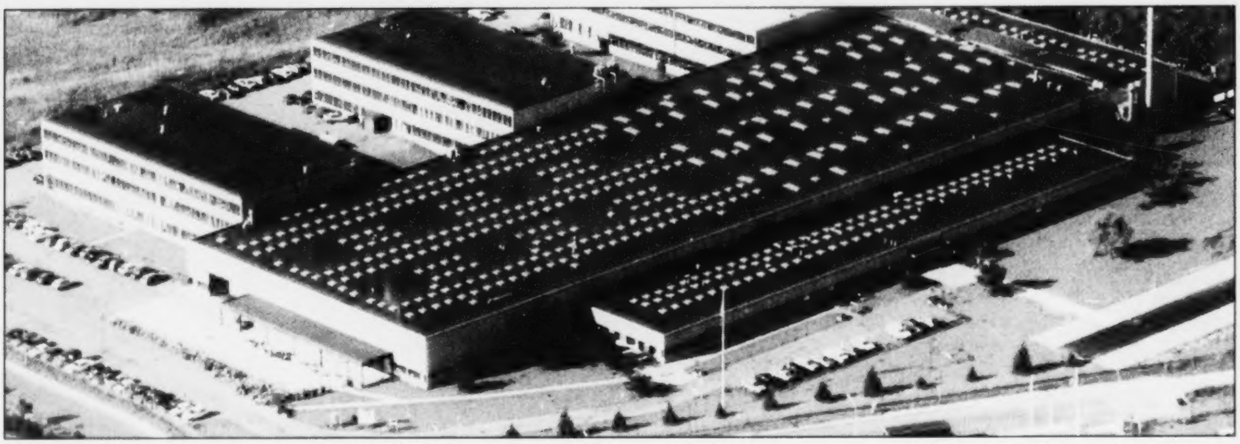
Training committees

These committees take their work very seriously, and as far as I can judge the work, it has proved to be particularly rewarding for all the parties concerned. The composition of the training committees, on which representatives of employers and employees make up the majority, is very important, and it is also essential that management and trainers take part. Although it has taken a running-in period before the effects have become apparent, the training committees are now also becoming visible to the trainees. Some of the training committees at my school have made it a firm rule to make contact with the trainees in the classes and monitor them through the course of their training. This has contributed towards trainers and training committees becoming good sparring partners.

By virtue of the training committees having close links with the vocational committees, there are good opportunities for making adjustments to the training schemes.

The disagreements that sometimes occur between employers and employees are virtually non-existent, which means that effective work is done towards making the training given to young people as good as possible.

Another major function of the training committees is to focus on industrial devel-



The Vocational School for Metallurgic Trades is a technical school with some 220 employees. The school has an average of 1000 pupils, students or industrial trainees.

opment and against this background ensure that the training programmes meet the demands of the time.

Cooperation between firms and technical school

In the region of the capital city in which we are located it is rather difficult to talk about the local area, since it is generally very large and there are ten technical schools, albeit with different profiles. There are training programmes in the iron and steel industry at six of them, which has both advantages and drawbacks, and it is not yet general for a training committee to operate at several schools in the same trade sector, but over the course of time this may become the case. It must be noted that the prospects for cooperation on this point are better in the provinces, as the natural geographical area is smaller.

Cooperation with local trade and industry takes place in other ways through the training committee. As mentioned earlier, the training system is based on two-part training, and our apprentices are therefore placed in a firm after the first year, in other words they are given a work placement.

This is significant in many ways. Contact between the firm and the technical school is ensured, as they share the same apprentice, with different tasks which are, however, very significant for the quality of training. In the last part of each school course the firm is invited to the school to see what the apprentice has learnt. Implicitly this is obviously not the only purpose - it is equally important to start a dialogue between the firm and the school. This way of meeting each other is particularly worthy of recommendation, as it builds up understanding and trust between the firm and the school. It must also be mentioned that it is an inestimable benefit in relation to the continuing training of skilled workers, which also takes place at the school.

Work experience places

There has been a shortage of work experience places in Denmark in recent years, which has created problems. The law on vocational training has been amended so that it is now the schools that deal with the work of providing work experience places. This task had been carried out by the job centres in the past.

The change in the law means that the schools can become involved more directly in providing work experience places. This in itself obviously does not produce more work experience places, but we consider that the prospects are greater with this cooperation that takes place between the firm and the school. One of the options there are today in connection with work experience places is a combined agreement. What this really means is that the apprentice here completes his period of work experience in two different firms, each with its own profile. This requires a thorough knowledge of the firms, which skilled workers often have from their cooperation with the firms and the training committees. The idea behind the formulation of the law is that the individual school administers the search for practical places. In the capital city we have dealt with this task in a different way, since the ten schools have set up a joint secretariat which deals with the administrative tasks of passing on work experience places. Another reason for this organization is to avoid destroying the cooperation between firms and schools. This could easily happen, because the firms would then be visited by teachers from several schools, and this obviously must not happen.

Instruction compensating for work experience places

In recent years the shortage of work experience places has increased, and a decision has therefore been taken in the Ministry of Education in cooperation with the parties involved in the labour market to set up what are known as workshop schools. The arrangement is that a number of the technical schools in different subject areas act as a firm where possible. This is obviously a very unfortunate development, but is necessary in order to satisfy the young people. It is regarded by everyone as a stop-gap solution which it is hoped will soon become unnecessary. Extraordinary efforts have been made to provide more work experience places. Another possibility that is being utilized is to place the trainees in a firm for short periods, but without the obligation the firm has in the case of a normal work experience place.

It is characteristic that there has always been good cooperation in the Danish vocational training system. This does not mean to say that the parties involved are in agreement, but there has been a willingness to find a solution.

A School in Touch with its Environment

Geographical situation

Before explaining the work or experience gathered by the "Instituto de Formación Professional de la Garrotxa" (Garrotxa Institute for Vocational Training) with regards to **relations with its environment**, I think I should first put the school in its geographical context.

The Institute is located in Olot (Catalonia), a town of approximately 25,000 inhabitants and with a strong tradition in small and medium-size industry; it is the administrative centre of a district with a population of 45,000 inhabitants, which has always suffered from serious communication problems entailing a certain degree of isolation. The nearest vocational training centres are at a distance of 30 to 35 kms.

Evolution of the centre

The "Instituto de Formación Professional de la Garrotxa" was set up in 1974 and forms part of the network of public centres under the auspices of the "Conselleria d'Ensenyament de la Generalitat de Catalunya" (Ministry of Education of the Government of Catalonia). Prior to its creation there had been no vocational training facilities in the district.

From the beginning work at the Centre was based on the collective effort of all teachers in running an organisation which, although it has undergone various changes, has always encouraged the faculty of teachers to take responsibility for the management of the Centre as a whole. At present there are 89 trainers giving instruction in seven main subjects (administration, electrical engineering, mechanical engineering, draftsmanship, health services, fashion and the clothing industry and agriculture) with courses lasting a total of five years (two years for VT-1 and three years for VT-2). A total of 1,200 students are registered at the Centre.

Lluís Sacrest i Villegas

Director of the "Institut de Formación Professional de la Garrotxa", Professor of Vocational Training in Administration.

A school in touch with its environment with the aim of facilitating transition and entry into working life

From its inception there was a strong desire that the school should be integrated into its local and regional context at every possible level with the aim of providing a service for the community and of taking on the role of a new catalyst.

It would be mistaken to believe that contact with the environment can be limited to an effective policy of public relations; in fact this way of working should produce a direct effect on the daily work of students and for this reason there should be a concerted approach by the Centre as a whole.

An open school

The school has always endeavoured to be an **open centre** and to ensure that its facilities are available to the community (sports facilities, gymnasium, printing and audiovisual equipment, workshops etc.); by the same token professional groups, industry, unions, institutions, trade associations etc. from the district should have access to the school to give lectures to students or for their own activities.

Equally, importance was attached from the beginning to the dissemination of information; at first this meant giving information about vocational training since there was no previous tradition in the district and later on it involved playing an active part in the social fabric of the town. The Centre has, therefore, taken various steps such as using local communications outlets (weekly publications, radio etc.), publishing articles and interviews on aspects of vocational training, entry into working life, vocational orientation etc., as well as broadcasting a weekly radio programme on agriculture or having a stand at the district fair.

Moreover, the curricula of each of the different courses include visits to firms, centres or institutions considered to be suitable for widening the knowledge of trainees.

We have also tried to maintain the closest possible ties with other educational establishments and especially with town halls, regional authorities and with the local business and professional world.

In-firm or alternating training

Over the years it became increasingly clear that links with industry not only had to be strengthened but that young people should complete their training at the actual workplace. In 1984 we therefore initiated the practice of in-firm training, in particular for students in their final period of training; practical work was limited to four hours a day over three month periods. Of the various different methods in use, we chose total "immersion" of the student. This experience was very positively assessed by trainers, industry and the students themselves and gave rise to the establishment of a compulsory period of practical work lasting a minimum of three to six months during the VT-2 phase. It also prompted the setting up of a committee within the centre for relations with industry, consisting of a trainer from each branch of the Centre, which took on the task of assessing and evaluating on-the-job practical experience undergone by trainees on the basis of notes taken during this period; the committee also kept in touch with companies, reached agreements etc. as well as acting as a body for appraising and reflecting on the value of in-firm training as a whole.

The Centre reaches about 300 agreements a year with industry for on-the-job practical training (of three months duration).

Final year projects

Within the framework of what we might call "initiative training", students of certain subjects carry out during their final course of studies a PROJECT (named for its similarity to the projects undertaken in the final period of university degree courses); in groups of two they simulate the creation of a business in all its aspects (market studies, profitability, investment, financing, procurement of permits, production etc.). A large part of the work has to be done outside the Centre, as much of the information has to be gathered in firms, town halls, inland revenue offices etc.; The student, therefore, has to cultivate independent relations with the commercial and institutional structures of his environment.

Carrying out real tasks in class groups

In certain subjects, and as part of their training, students have undertaken real tasks under the guidance of professionals or official bodies, thereby gaining valuable experience; for example, students of draftsmanship have drawn up plans for the conversion of a farmhouse into a local social centre as well as carrying out studies for the renovation of a dispensary in one of the villages of the district. Students of administration have produced studies on local commercial activities as well as field work and statistics on the local fair. Agricultural students have worked on an experimental farm to study the growing and improvement of different varieties of maize in the district.

Vocational training courses for the unemployed

In recent years vocational training courses have been held at the Centre (geriatrics, data-processing, foreign trade, electrical engineering) for the unemployed, in particular for women, who represent the most affected group in this district. These courses have been organized in conjunction with INEM (National Employment Institute) or the "Conselleria de Treball de la Generalitat" (Catalan Ministry of Labour) in the belief that the Centre was the only means of providing these people with training and a new start and that public funds destined for a particular sector of the population or district should be for the benefit of the latter regardless of the government department on which they depend. Thus last year, with the cooperation of the "Conselleria de Treball de la Generalitat", an advanced level course in industrial ro-

Casp/Stern

Manfred Vollmer

bot technology was held for young people up to 25 years old; it was very successful both with regards to access to employment and professional aptitude, with the result that this year it will be expanded to include a course of CAD/CAM CNC.

In the field of agriculture, courses designed to place young people in farming enterprises, such as dairy farming, cheese-producing and organic horticulture and aimed at farmers and stockbreeders in the area, open up the possibility of a training which they were previously denied.

Public foundation for the promotion of vocational training

The initiation of in-firm training for the students of VT2 greatly improved ties between the Centre and the commercial, business and institutional world of the district; the need to give these ties a systematic framework and to overcome the limitations imposed by official regulations led us to propose and promote the creation of an entity which would unite the different sectors, both public and private, interested in vocational training for the district and which would help to consolidate the relations between the Centre and its environment. This body, dependent on the "Consell Comarcal de La Garrotxa" (District Council of La Garrotxa), assumed the legal status of a public foundation and, in accordance with its statutes, its objectives are as follows:

- To encourage in young people and society as a whole the need to acquire the highest possible level of professional skill so as to successfully confront the technological reorganisation which we are at present undergoing.

- To seek assistance, subsidies and co-operation in order to obtain the necessary funds for realization of the programmes and objectives adopted by the foundation.

- To work closely with the "Instituto de Formación Professional de la Garrotxa" in order to bring curricula up-to-date and to adapt them to requirements.

- To ensure that the initial employment of young people matches their skills.

- To examine new specialities needed in the district and to make the necessary changes or additions to existing curricula.

- To improve the vocational training of workers in the district.

- To organise courses, discussion groups and lectures considered necessary for a steady improvement of workers' skills.

- To combine the efforts of the various public and private administrative bodies prepared to assist with the improvement in skills and vocational training of inhabitants of the district.

- To work for the establishment in Olot of laboratories, workshops and centres for research, studies, services etc. available for use by all interested sectors such as students, teachers, firms, industrial and agricultural enterprises, professional groups etc.; and to take care of the administration and management of these centres.

This body, which has been in operation for five years, is on the one hand **reality** in that it has established a multi-purpose laboratory for the district as well as a committee for grants and in-firm practical training; it has also given its support to the holding of advanced technology courses at the Institute. On the other hand it is still a **project** in that there remains much ground to be covered before it achieves its objectives.

Our evaluation of in-firm training

When in-firm training was included in the students' curriculum, the Centre defined the part it should play in the educational process of the student. In outline the objectives of in-firm training are as follows:

- To help the student to carry out real tasks which are relevant to the speciality in which he is being trained.

- To ensure that students have the opportunity to familiarize themselves with types of work and work methods as well as with tools and machinery which it would be difficult to demonstrate at the school.

- To give the student the opportunity to make contact with the world of commerce

Manfred Vollmer

and labour, and to introduce him to types of human relationships which are not possible within the context of school training.

- To facilitate the transition of students to working life, a process which is an important part of their positive and active integration into society as a whole.

During these years we have been able to observe that in-firm training is positive since contact with the working environment:

- Clearly helps to "mature" the young student and soften the transition from school to work.

- Is a vital element in the process of adapting young people to society.

- Gives them greater awareness of their own skills and of the need to perfect them.

- Furthermore, nearly all students who complete their studies find employment. A significant number are employed by one of the firms in which they have spent a practical training period.

We wish to emphasize the point that, in our experience, in-firm training is more important with regards to the integration of students into society than for its technical training aspect; while the latter is important, it does not play such a vital role in ensuring the students' successful transition from school to the working environment and into society.

Some thoughts about the role of the school in the process of transition and in cooperation at a local level

I do not wish to finish this article without mentioning some of the ideas circulating at the Centre on this subject and which will undoubtedly give rise to much debate:

- Many of the projects, activities and trials carried out by centres in this field have been the result of the voluntary initiative of certain teachers or centres. A more decisive approach on the part of the educational authorities is called for, although we should draw attention to the important role played by the "Servei Escola-Treball de la Generalitat de Catalunya" (School-Work Service of the Catalan Government) in recent years.

- The authorities should support centres which wish to work in this way, but should avoid "uniform" solutions. Certain types of experience cannot be applied generally, since they form part of the reality of a particular district which may bear no relation to that of others.

- Vocational training centres will only be able to play a significant part in cooperation and local development, if they are allowed sufficient autonomy to adapt to the reality of their particular district and if the human and material resources of each centre are taken into account. This autonomy should be based on a transfer of responsibilities and on confidence in its management.

- This transfer of confidence and responsibility to the centres should in no way imply reducing the role of the authorities; they will instead be able to direct more energy to the task of coordinating and monitoring activities.

- The activity of the government in an administrative district, especially if it is small, should be properly coordinated or else coordination should either be carried out at a local level, in order to ensure that every possible sector is able to take advantage of investment, regardless of the government department from which it has originated. Coordination of this nature is essential in the field of vocational training, since it is obviously a complex subject in which many departments may be involved.

- Up till now teachers have been trained to give instruction in their special subject and nothing more, when in fact their role within a centre could be far more comprehensive. It has become necessary to redefine the function that teachers should play in the future; it would seem that this aspect is included in courses for teachers on educational reform, an aspect which is essential in creating the right climate and sensitivity to the subject of transition and local cooperation.

- The subject of transition and local cooperation can only be confronted efficiently once there is a shared approach on the part of the centre, and therefore of the majority of trainers, towards the community in which it is embedded and from which it derives its meaning. We cannot expect young people to be successfully integrated into the social and working fabric of society, if the centre itself is not clearly integrated.

Management training for head teachers based on business models

In our complex society there is an increasing need for new types of partnership to tackle new problems so that people with different responsibilities and points of view can make their contribution. In the Italian training system, the Protocol of Agreement between the Ministry of Education and Confindustria (Confederation of Italian Employers) is a significant example of this type of "alliance". Among the various training initiatives, including school and vocational guidance, in-company work experience periods, teaching technologies, the environment and education for Europe, the self-instruction multi-media course for head teachers conducted in over 18 Italian provinces has been very successful. The course, entitled "school organization and management" was offered to over 540 heads of upper secondary schools who, helped by a good tutorial team - made up of other appropriately prepared head teachers - a good "paper" guide and nine video cassettes, looked at case-studies of school life and discussed new organizational models, taking account of the possibilities offered by business models.

Renato Di Nubila

Coordinator of the Joint Ministry of Education-Confindustria Committee, Vice-Chairman of the Regional Institute for Educational Research, Development and In-Service Training (IRRSAE) of the Emilia Romagna Region

Ways of "relocating" systems of education and training so that they are more in keeping with the new needs of citizens and the requirements of the complex society in which we live are being sought.

This is no easy task and schools cannot satisfy these new requirements by themselves.

In Italy, as in other industrialized countries, the whole question of education is underpinned by an increasing awareness of the strategic importance of "intangible" resources and in particular training.

Public and private institutions are very aware of this issue and willing to enter into agreements and work together.

Confindustria (Confederation of Italian Employers) has made great efforts to promote this kind of action in recent years along with public industrial organizations such as IRI (Institute for Italian Reconstruction). These two top-level associations have now gone a stage further and have signed a "protocol of agreement" with the Minister for Education and the Minister for Universities. The aim is to help schools to transfer certain aspects of technical and technological culture into their teaching and therefore to enhance the role of technical teaching as part of the broader cultural development of our time represented by "systematic" knowledge.

The protocol of agreement between the ministry of education and confindustria: towards an "alliance system" for schools

The agreement reached in July 1990 is undoubtedly a turning point in the history of Italian education. The social divisions of such a "long" country have had adverse effects on schools and training centres. Italy needs a "pact" or a series of "pacts" giving top priority to training. This aspect of the problem is tackled in the text of the Ministry-Confindustria agreement: making the most of the production world's contribution to the modernization of schools and providing educational workers with the best possible opportunities of finding new ways of promoting high-quality and essential learning. The content of the agreement, which is already producing interesting results for both teachers and heads of schools, can be summarized as follows: the Ministry and Confindustria have decided to set up permanent consultation procedures "in order to improve the quality of training for young people, in relation to the needs of the working world, by mobilizing their own and their associated central and local structures". Bearing in mind that occupational skills and technologies are constantly being renewed, schools and enterprise will undertake to promote opportunities for cooperation with the business world to achieve these objectives.

This undertaking paves the way for a whole range of possible cooperation links focusing on the following training areas in particular:

- school and vocational guidance,
- innovation in school curricula,
- technical and vocational education,
- post-secondary training,
- training of administrative and teaching staff in the school system,
- development of educational technologies and research,
- minimum knowledge of Europe: economic, social and cultural aspects,
- minimum knowledge of environmental and development issues,
- training and work experience in enterprise.

Mixed working parties made up of ministerial inspectors, school personnel and representatives from the production world have been set up to deal with each of these topics.

Each working party is responsible for an in-depth examination of the topic which it has been assigned and the organization of pilot training schemes for teachers and head teachers.

A number of ventures have already been organized in certain cities in the North of Italy, where the Ministry/Confindustria proposal has been launched.

The self-instruction course for head teachers in 18 Italian provinces

The training project for head teachers from technical as well as vocational and academic schools is undoubtedly one of the more novel initiatives being promoted by the Ministry and Confindustria. This large-scale national project for the training of school principals, formulated and organized jointly by a public institution and an association of private entrepreneurs, is the first of its kind. This was stressed by Giancarlo Lombardi, director of the schools division of Confindustria and a dedicated promoter of links between the school system and the business world: "This project is intended to provide head teachers with the expertise which they need to make radical changes to school organization and management. It is not enough just to make minor organizational adjustments. Change, if it is to be effective, has to go together with a new outlook making it possible to introduce into schools the new management methods which the "management revolution" has introduced into the business system".

According to Italian entrepreneurs, this does not just apply to the public authorities but also and in particular to schools where management criteria, yardsticks for measuring their activity and productivity, and personnel evaluation techniques have not up to now been introduced.

None of the four main principles of "scientific business management" have been systematically applied in Italian schools:

1. clear definition of the objective or result to be achieved;
2. ways of achieving this objective and the necessary authority and personal responsibility;
3. the possibility of adequate career and financial rewards if successful;
4. the need to take responsibility and face up to consequences in the case of failure.

"This situation" - Mr. Lombardi continued - "has been brought about by the ponderous nature of the authorities and by mass education in particular. It has led to widespread shortcomings in the quality of the service offered by schools".

Is it possible to transfer some of the "philosophies" of business culture and strategy to schools? A great deal of work by ministerial and business experts has gone into this question and has led to these courses which have proved to be extremely useful in practice.

In order to provide a blueprint for the efficient organization of administrative, technical and auxiliary services, it is widely felt that individual schools must take more responsibility for their own management and that the central authorities need to make expenditure more transparent and reduce the time lag between decisions and their implementation. In other words, management training for head teachers entails a significant innovation, that of envisaging schools as "**learning businesses**"; however, convincing public opinion that schools are businesses is not an easy task.

Francolon/Gamma

The role of the head teacher in better structured system of school organization

The Ministry and Confindustria have consequently chosen to focus the training of head teachers on the following topic: "**school organization and management**". This topic has been the focus of all 18 of the courses conducted in the 18 Italian provinces selected by the Ministry from the North, Centre and South of Italy.

In order to make sure that the initial objectives were achieved in full, very intensive preparatory work to train course coordinators - selected from the most motivated and aware head teachers - and to prepare the "**training package**", made up of a "guide manual" and nine video cassettes for self-instruction, took place before the various schemes were actually put into practice. The course module and the material prepared were tested in a number of Italian towns before being sent out to the various provinces selected for the national training plan.

The main ideas behind the course are examined below.

Balanced and efficient management of schools requires better innovative and managerial skills on the part of school administrators.

Head teachers must therefore be able to provide a proper dynamic balance between the learning-teaching process and the internal organization of the school. In this respect, the work of head teachers may be improved if radical changes are made to current regulations so that the best educational results can be achieved from the few resources available (funds, facilities, time and manpower).

If they are to become more professional, school administrators must also learn less bureaucratic attitudes and the ability to use regulations constructively; they must be able to pinpoint significant problems in the life of the school, formulate appropriate and efficient solutions, set specific objectives for themselves and their colleagues and monitor the results achieved.

Can the training of school administrators incorporate suggestions, strategies and organizational models from the culture of business organization?

Using business models as useful "references" for organizational issues has not been easy for schools.

It is not universally accepted that the organizational structure of a business can be superimposed on a school. Opponents still point out that the school does not satisfy some of the basic requirements of an open production system: markets, customers, profit motives, worker mobility and so on.

Looking at schools in the past with their monopoly over education and their lack of interest, until recent times, in the ups and downs of demand in the market for training and the needs of young people and families, they are not wholly wrong. New training systems are, however, moving in a different direction. Schools will need or will be forced to review their internal organization and the ways in which they respond to the demands of users, students, families and institutions.

The way in which schools are managed will obviously be crucial in this new situation and successful outcomes will depend on systematic and high-quality strategies.

Schools must compare - largely by analogy - their own operation with the organization of businesses and the ways in which businesses enter and remain in the market. Studying the most efficient business strategies is in any case worthwhile. This is the problem: helping schools to study organizational and managerial approaches and to use these approaches to satisfy new demands for education and training.

It is these basic considerations which have led to the multi-media refresher training course for head teachers focusing on school organization and management.

The course: reasoning and cultural premises

Recent studies have portrayed the organization as an organism, an arena and a business: three metaphors which can help to understand the meaning of a complex system.

Organizations are seen in some respects as a social construct of collective action, in which individual processes and dynamics co-exist and lead at different times to co-operation, independence and conflict (Friedberg, 1972); organizations are also seen as having "the fundamental dimension of a "political arena" providing a forum for the opposing and necessarily independent power games and strategies of those involved ...".

From this point of view, the organization does not exist per se and does not have its own inherent strategy: organizations are artificial constructs and are provided with an identity and a strategy through which they function as businesses run by their members as they attempt to work together to ensure the survival of the organization. This view is still not widely shared or is not seen by schools as an important factor in the same way as teaching and discipline. This does not mean that organizational problems are extraneous or unknown: head teachers are well aware of such problems as they have to tackle them and find solutions every day.

There is a further problem: schools are traditionally perceived as "domestic institutions" or "places of learning" and not as complex organizations. Operating from the point of view of an organizational logic means taking a business approach with an awareness of the difficulties and problems to be tackled and a willingness to accept the challenge and find solutions. In business this is known as risk culture, result culture or industrial culture.

In an approach of this type, head teachers are a necessary but not an exclusive "focal point" in the same way as managers in business. From a business point of view, it goes without saying that the training of head teachers is an essential factor in ensuring greater efficiency and improved quality within the school.

Everyone knows, however, that in most cases head teachers are teachers who have switched - after success in a competition - from being specialists in a branch of knowledge to being coordinators of other specialists.

Paradoxically, they become organizers and resource managers while lacking the training and experience needed for these tasks, moving in most cases from a teaching post to a managerial role.

Course structure and operating methods

The aim is clear-cut: to promote an awareness of the need to see schools as service organizations for the public and to manage the school service as a well-run business which meets the social needs of its customers.

The training scheme is also intended to provide head teachers with a structured opportunity to develop their abilities to manage complex processes in a way which is in keeping with the operating needs of the school and includes aspects of autonomous management and European educational developments.

Course content

In outline, the topics tackled include: the identity of the school as a service organization in relation to its environmental context, a review of aspects of school organization paying particular attention to planning and control, management of resources and risks, leadership and communication dynamics and a final review of the role of the head teacher.

The basic "message" is that schools need to develop an efficient planning culture and that this is possible only by building on the culture currently widespread within schools; the head teacher needs, moreover, to be seen as the manager of a range of problem areas.

Work modules incorporating a new philosophy of school management have been formulated around the following themes:

section A:
- the school as a business;
- school organization and service quality;
- the formal responsibilities of the head teacher.

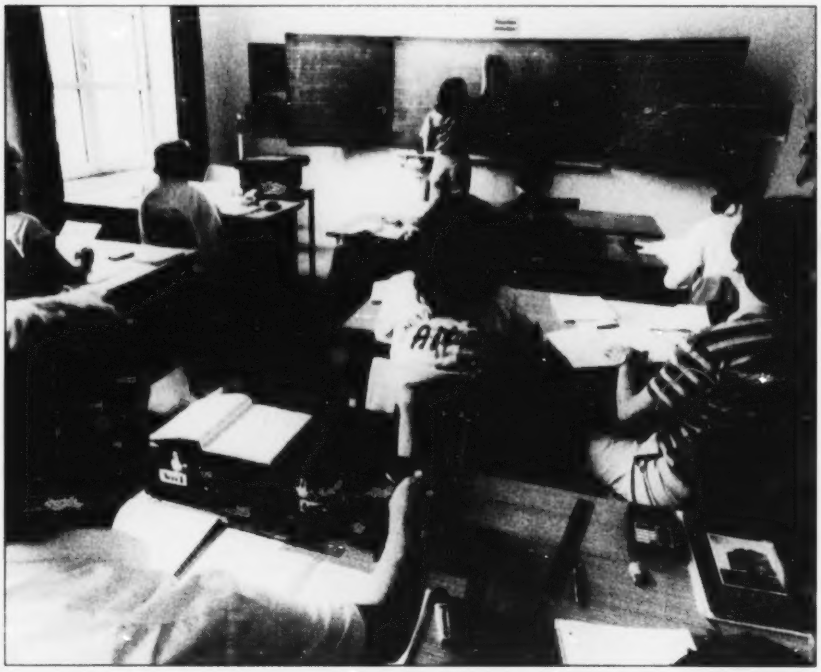
section B:
- the complexity of the school service;
- risk management in schools;
- resources and costs of the school service;
- communication processes and school leadership;
- the role of the head teacher.

Methods and resources

The various modules use different methods: **video cassettes** are alternated with periods of guided discussion, exercises and analyses of cases relating to aspects of school management (school organization, planning and budgeting), conduct (communication, leadership) and risk management.

The course methods are based on:
- the "case-study" method, making it possible to take a real school situation as a starting point;
- the involvement of the participants, comparing and making the most of their experience;
- an original concept which makes it possible to take the specifics of organizational analysis of the school as a starting point.

The course is structured as two modules each lasting three days. The course formula is based almost entirely on self-instruction and self-management.



Linke/laif

The course uses a guide manual and nine video cassettes on the following topics:

- description of the course,
- the school as a business,
- operating processes and the quality of the school service,
- responsibility and its forms,
- risk management in the school,
- the school budget,
- communication processes,
- leadership,
- the head teacher and the organizational culture of the school.

Geographical organization of course

The course product needed to be "industrialized" in order to make it available to the largest possible number of head teachers.

A group of experts from Bologna University, the Ministry of Education, Confindustria and the National Association of Head Teachers came up with the idea of a multi-media approach to be disseminated widely on a national scale. As mentioned above, the Ministry of Education chose 18 or so Provincial Directors of Education and, within the local area, a "reference" school. The training structure of a typical course is consequently as follows: 30-40 head teachers are selected and, if suitably motivated, are invited to watch the video recordings with contributions from experts.

The group of trainees - under the guidance of coordinators prepared for this role on previous courses - discusses the issues raised by the video recordings.

The course director and the two coordinators are head teachers who have to face organizational and teaching problems every day and are thus credible trainers who are able to understand and put across the issues which the course raises. In order to make the training more effective, a number of "cases" from school life are discussed and resolved in small groups or at plenary sessions.

The "cases" discussed include:

- the work of two head teachers;
- planning of teaching in a secondary school;
- budgeting in a commercial school;
- a study visit abroad.

Results of the training scheme

The central offices of the Ministry and Confindustria provided constant help with the courses which were organized in practice by the Provincial Directors of Education and the Industrial Associations of each of the Provinces selected.

Constant monitoring of all the stages of the course was thus possible. The initial results have already been collated and show that the 541 head teachers who attended the course were very satisfied.

One of these head teachers - to give an example - made the following interesting comment:
"**Real training for school administrators is now available. This is a high-quality course**".

The success of this initial experiment has led to a substantial demand from other Provinces not included in the first wave of courses.

The formula and the paper and audiovisual materials will be sent out from the start of the next academic year (1992-93). The Ministry and Confindustria will be responsible for providing the support needed for a further series of courses, providing the tutorial team of the coordinators and the course director and arranging for assistance from Provincial Directors of Education and local Industrial Associations.

Manfred Vollmer

Conclusions

A question by way of conclusion: is it possible for Italian schools to adopt this organizational approach?

Considerable efforts are being made in many schools and there is little doubt that many head teachers, aware that an approach of this type calls into question the traditional inertia of some systems and the sense of a "culture of impotence", are willing to play their part.

This training scheme has its own philosophy and is firmly committed to a change of direction in school management.

The initial courses conducted along these lines have met with approval. They confirm the view of those who are convinced that schools must be helped to make the most of internal resources and also to look for indispensable support from outside from the point of view of regulations and also, and more importantly, from a cultural point of view.

It is just as fundamental to develop correct and effective methods and practices of communication both within and outside schools.

The training package offered by these courses and the self-instruction methods for which trainee head teachers are themselves responsible are based on this approach.

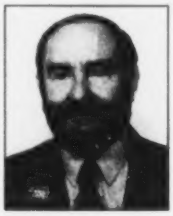
The course consequently places head teachers - within certain limits imposed by actual practice - in the position of directors of a production which is always interesting, which must be broadcast every day and in which everyone must know and perform their role.

Recognition and validation of vocational skills in France

The author takes as his starting point the paradoxical co-existence in France of the emphasis placed on the diploma within the education system and the lack of emphasis placed on the diploma by employers, especially from the point of view of recruitment.
In this context, what criteria can be used to construct hierarchies of professions and validate methods of social advancement?
The article examines new approaches intended to improve the recognition and validation of occupational skills: the development of credit units and the modular organization of courses, new qualifications and the ratification procedure, the establishment of a right to qualifications focusing on the individual training credit (CFI) and finally a policy of recognizing experience chiefly through skills reviews and portfolios.

Self-critique

A CEREQ dossier from 1979 (1) noted that the oldest protagonist of the French education system was the Church, which has gradually lost its de facto and de jure monopoly to the State and more recently to employers. It has to be borne in mind, however, that the cultural outlook of the upper classes (clergy, military and landed aristocracy, middle class shopkeepers, landowners and businessmen, etc.) has always dominated reforms of the education system, placing the emphasis on an élite (general and scientific) education at the expense of a mass (more vocational and technological) education.



Bernard Lietard
Superintendent of works affiliated to CNAM
Chair of adult training at the Conservatoire Nationale des Arts et Métiers, Paris

France has been slow to diversify its school structures (class 3 of secondary education, i.e. nine out of a total of twelve years of primary and secondary education) because of this historical tradition. The conventional dichotomy encountered in European countries between general and vocational education takes the form in France of a trichotomy between general, technical and vocational streams. Alternance training schemes are confined to an auxiliary role. These streams have few links with one another because of institutional divisions, with an evident hierarchy of academic courses (general, scientific and literary education), courses leading to technological baccalauréats and vocational education which is itself divided into school education and alternance contracts (apprenticeship and other employment contracts which include training). Everyone, including students, families and workers within the educational system itself, still seems to agree, despite some advances in recent years, that there is a hierarchy of qualification routes and that the trend towards the "technical" is an adverse trend brought about by the lack of anything better, i.e. improved general streams. Although it is true that post-school training schemes have gained considerable ground since 1971, they offer transitional and adaptation training intended to make up for the shortcomings of school education. They consequently play a major part in the remedial system and make little contribution towards the establishment of a permanent education system.

In this context, the following question may be posed: have the selective way in which the education system has been constructed and the lack of acknowledgement of some training schemes been out of keeping with the real needs of the workforce? More generally, what criteria of competence can be taken as a basis for occupational hierarchies and used to sanction social advancement practices?

The most widespread form of validation was the **diploma** defined by a recent "official guide" (2) as "a document, whether or not formal, establishing a privilege or a right". If issued by a competent authority, the diploma has a legal dimension: it conditions access to certain professions and certain types of training or competitions". Jean-Marie Barbier (3) has examined the origins of the "licence" and the "diploma" in the Middle Ages and the society of the Ancien Régime: the former (from the Latin "licere": to permit) was in fact an authorization to teach and the latter entitled its holder to exercise certain rights or to carry out a certain type of activity. Up to the end of the 18th century, however, school systems were fragmented, had few clear-cut objectives and there was no legislation on examinations apart from some procedures laid down in local or sectoral regulations. It was the revolutionary plans of the second half of the century which established national validation in connection with educational plans based on three principles: access for all, preparation for specific social functions and the recognition of individual merits (implying their evaluation and the establishment of levels) (4).

It is for this reason that the baccalauréat recognizing the completion of secondary education and the main modern university qualifications were established in 1808, i.e. at a time when the political authorities were establishing lycées and new universities to educate people for most social and political careers.

Collective bargaining by the social partners leading to collective labour agreements defining occupational classifications is a further source of validation. These agreements define "qualifications" by describing the requirements of a job and the criteria for access and recruitment to this job. Leaving aside the professional "guilds" which regulated access to their profession, it was the industrial revolution which led to systems of work based on task division and the functional dependence of activities, thereby raising problems of job classification and job hierarchy.

In this context, the "Parodi" grids were in use in France for many years. Formulated after the war, they are generally based on categories (blue-collar workers, white-collar workers, technicians, supervisory workers, managers). These grids attempt to match expertise, jobs and minimum salaries.

These two official sources of validation - diplomas issued by the State and qualifications set out in labour agreements - are generally unconnected in France: an individual's qualifications, evidenced in part by the diploma, do not always correspond to the job which he or she occupies. French employers set great store by their freedom to assess employees' qualifications: with a very few exceptions the diploma, while its practical value is not zero, is not automatically recognized by the production system as a contractual qualification. A recent study by Patrick Guilloux(5) confirms the truth of this "rule of the game":

"Leaving aside the regulated professions, it seems that both as regards recruitment for jobs and career advancement, the holders of official and unofficial diplomas, even though they benefit in some cases from special advantages, are placed on a equal footing with employees who have an "equivalent" level of training, "experience" or professional "practice" which is "sufficient" or "recognized"."

This trend has been further accentuated by the recession starting in 1974 and its consequences, i.e. precarious jobs, deskilling and the tendency towards flexibility. Whatever the level of recruitment, the French system for relating training and employment is blurred and there is a gap, especially at the skilled white-collar or blue-collar level, between the level of certification achieved (diploma or certificate) and the level of qualification on recruitment. This "French disease" has in some cases shed doubts on the credibility of training schemes at this level, especially as regards programmes intended to integrate young people into employment. In this inauspicious economic and social context, salary discrepancies between diploma levels are higher than in other European countries and are closely linked to the levels achieved in general education which remains, in the words of Jean-Pierre Jallade(6), "the moving force of social and occupational hierarchies". He also notes that "school meritocracy" is based on a permanent confusion between certification and qualification: more importance is attached to the diploma obtained than to recognizing expertise and the potential use of this expertise in work contexts. His conclusion is eloquent: "the school certificate is a convenient but inadequate criterion; more account should be taken of activities, work and expertise acquired through experience when defining qualifications. We have to learn to accept hierarchies and mobility based on work and activity as a supplement to and possibly as a replacement for those based on diplomas. Everyone agrees with this on paper, but in France, long a country of teachers where education is part and parcel of the Republic, ... such a change is no easy task."

Progress

The second part of this article looks at the progress which has been made. Most advances came to the fore at the end of the 1960s and are, from our point of view, keys to improved skill management which attempt to link training, work and employment within an overall policy which takes account of the individual dimension. We shall examine four of these advances:

- the development of credit units and modular training schemes;
- new qualifications and the ratification procedure;
- the establishment of a right to qualification;
- the recognition of experience.

The development of "credit units"

The "credit unit" system is one of the main innovations introduced by the Ministry of Education to renew methods of validating expertise for the award of a national diploma. Established in the 1970s, following on from experiments conducted after 1967 in Lorraine in order to solve the redeployment problems of the Lorraine coal mining area, this system became a fully-fledged validation method during the 1980s since the diploma obtained is equivalent to the diploma obtained in the more traditional system and attests to the same occupational skills.

Trainees who choose to obtain a diploma by this method are able to do so gradually as they learn, since the institution appraises intermediate knowledge by reference to a grid of general and specific competences based on knowledge and expertise which can be evaluated at different levels. This involves objective-based education and personal training routes taking account of trainees' prior experience.

Breaking away from the "all or nothing" principle of the traditional diploma, its main advantages are that:

- it is constructed around the learner's activities;
- it provides a rational basis for criteria-based educational evaluation, allowing for communication between trainers, and "progresses" on the basis of a training contract which from the outset lays down what results are anticipated so that they can be monitored by assessment.

After fifteen years of trials, this validation method is now widespread and currently involves the CAP (vocational aptitude certificate), the BEP (vocational studies certificate), the vocational certificate, the BTS (higher technician certificate) and the recent vocational baccalauréats.

The recent establishment of "validation centres" by the Ministry of Education makes it possible to organize individual monitoring, outside of the dates set for traditional examinations, thereby providing the possibility of on-going intermediate validation, especially for adults.

The Ministry of Agriculture is also making considerable use of credit units in the renewal and establishment of diplomas.

From the point of view of the Ministry of Labour, the increasing use by AFPA (Adult Vocational Training Association) of courses organized in a modular form should in time also allow for personal training routes which take account of experience acquired prior to commencing training. Modular courses also allow for routes involving different disciplines, making it necessary to break down the barriers between training streams; despite progress in recent years, this is still an unresolved problem in France.

Trends in work systems

A 1984 seminar on the topic: "Vocational training, new technologies and industrial change" (7) highlighted the repercussions of these developments on the validation of knowledge:

- the increasingly rapid outdating of the diplomas obtained through initial or continuing training: there is a growing gap between the skills and knowledge which individuals possess and the constantly changing requirements of the tasks which they perform or are supposed to perform;

- growing occupational mobility is forcing increasing numbers of people into retraining or redeployment schemes; the qualifications being demanded place greater emphasis on methodological and general skills than specific knowledge;

- new qualifications are appearing and may give rise to the creation of new training streams, raising the problem of their validation.

More generally, extensive dialogue in the 1980s was intended to improve the links between training systems and work and to optimize the quality of the training provision and the resources channelled into training. This had a major impact on validation:

- development of initial vocational training leading to broader-ranging skills with an increasing proportion of general education intended to make trainees more adaptable and entailing the creation at all levels of education and training of broader diplomas relating to families of occupations in place of specific qualifications;

- changes in the organization of courses, establishing common cores, methods of modular organization and key qualifications, thereby preventing premature specialization;

- remodelling of reference systems for training and diplomas, taking account of the working situations for which training schemes are intended to prepare. This work took place at two levels: the Consultative Professional Commissions bringing together the social partners and the "new qualification division". The latter is responsible for formulating new training schemes for new professions by analysing the work function, the tasks which make it up and the skills needed to perform these tasks.

In the case of new qualifications which are not covered by existing diplomas, France has had an original validation system since 1971: ratification. Requests are examined, on the basis of a report, by a national technical committee containing representatives from Ministries and from the socio-occupational world. This system enables official and public evaluation of an interministerial type: findings are published in the Official Journal. Ratifying a study title entails an assessment of the value of the training leading to this title and of the career prospects of the holders of the title, locating it at one of the training levels of the interministerial nomenclature (skilled worker, technician, higher technician, engineer, manager). Ratification validates a title, with reference to a precise category

Möller/Ullstein

and specific training, in terms of a level of occupational competence: it does not provide equivalence with technological education diplomas.

In the professions, especially in sectors in which labour organization has undergone substantial change since the 1960s, the "Parodi grids" have gradually been abandoned in favour of classification grids of a "categorizing" type. These are based on the definition of qualification levels from a set of identical criteria for each level: responsibility, autonomy, nature of the activity, level of knowledge possibly with a reference to a diploma. The texts of agreements also deal with career advancement using criteria other than conventional seniority. This provides new and more individualized ways of managing human resources.

The gradual establishment of a right to qualifications

As an indirect consequence of the freedom of movement of people and European work on the correspondence of qualifications, French policy-makers became aware at the beginning of the 1980s of a substantial deficit of qualifications validated by diplomas. Some 40% of the total population aged 15 and over, i.e. 17 340 640 people, stated that they possessed no educational qualification in the 1982 census. There was an obvious need for a right for everyone, whatever their age or status, to attend training leading to a recognized qualification. In order to make up for the inequalities of the education system, this right to return to training was to be as long as initial education had been short.

The establishment of the Crédit Formation Individualisé (CFI - Individual Training Credit) during the implementation of the 10th Plan (1989-1992) met this need. Set up for young people aged between 16 and 25 in September 1989, it was extended to adult employees in 1990 and to adult jobseekers in February 1991. An individual right to qualification was also enacted in the Law of 1 July 1990. These measures have had significant consequences on validation systems, particularly as regards transparency and accessibility: they have made it necessary to develop methods for certification which can be recognized by all at the end of the individual training route, entailing closer links between training streams and their mutual recognition. They have also enabled progress from the point of view of the recognition of experience, as shown by a joint ministerial guide to validation (2) and a documentary dossier produced by the Centre INFFO (8).

Recognition of experience

Another response to the deficit of attested qualifications was an interministerial policy to recognize experience developed from 1984 onwards by the Délégation à la Formation Professionnelle (Vocational Training Delegation). In the absence of validation, the solution was to offer individuals methods by which competences which they had actually acquired could be endorsed. Recognizing their experience in this way would help them to find jobs and/or training. Two main instruments have been established for such recognition and to help individuals to formulate and carry out realistic projects for social and occupational integration:

- the "skill portfolio" based on the North American portfolio and taking up Jacques Aubret's formula (9): "knowing yourself better so that others can know you better";
- the personal and professional skill reviews which, following on from experiments conducted since 1985, are intended to identify the skills and potential which individuals can channel into projects which they themselves help to define; a right to this review was enacted in a Law of 31 December 1991, giving concrete shape to this social advance and affirming the social utility of continuing educational guidance.

These measures also recognize the importance, over and above knowledge gained from training, of knowledge gained from experience. Increasing account is being taken of such knowledge from the point of view of validation by diplomas. The credit unit system has been discussed above. The idea of taking such knowledge into account for admission to courses and also its recognition for the granting of diplomas is currently being discussed within higher education.

As a recent document from the Délégation à la Formation Professionnelle (10) points out, "the issue of validation is one of making qualifications the acknowledged objective of training routes; qualifications consequently have to be taken as a basis for permanent integration into employment". All the advances discussed in this article pursue this objective in one way or another.

In this sense, validation ceases to be an outdated "academic" issue; it is the prime mover of all the partners as they attempt to build up a partnership aiming at improved economic efficiency and more equal opportunities for everyone. This is the challenge: the changes to be wrought in minds and attitudes are substantial, but are the price which has to be paid if French society is to become a modern society.

References:

(1)"Enseignement et organisation du travail du XIXème siècle à nos jours". CEREQ Dossier 21, June 1979, La Documentation Française.

(2)"Crédit formation. Guide de la validation". Secretary of State for Technical Education, ADEP Editions, 1991.

(3)**Barbier, Jean-Marie**: "L'évaluation en formation". PUF, 1985.

(4)**Piobetta, J.B.**: "Examens et concours". Paris, PUF, 1973.

(5)**Guilloux, P., Luttringer, J.-M.**: "Validation et reconnaissance des acquis de formation par les branches professionnelles et les entreprises. Approche juridique". MADIF/DRFP Ile-de-France, 1992.

(6)**Jallade, J.P.**: "Ecole de la seconde chance, deuxième chance de l'école. Former des professionnels pour le 21ème siècle". Commissariat Général du Plan, Institut européen d'éducation et de politique sociale, December 1987.

(7)Proceedings of the symposium of 8/9 March 1984 at Le Creusot, "Formation professionnelle, nouvelles technologies et changements industriels". ADEP Editions, 1984.

(8)"Reconnaissance et validation des acquis". Documentary dossier, General texts, Centre INFFO/DFP, 1992.

(9)**Aubret, J.**: "Rédiger un portefeuille de compétences: se reconnaitre pour se faire reconnaitre". L'orientation, INETOP CNAM, March 1991, Vol. 20, No. 1.

(10)"La validation". Letter from CFI, Special No. 7, April 1992, DFP/INFFO.

CEDEFOP

prepared by
Maryse Peschel
Documentation
CEDEFOP

Bibliography

Conclusions of the Council and the Ministers for Education meeting within the Council of 14 December 1989 on technical and vocational education and initial training
in: Official Journal of the European Communities (Luxembourg)
No. C 27/4, 06.02.90, pp. 4-6, Office of Official Publications of the European Communities
DA, DE, EN, ES, FR, GR, IT, NL, PT
ISSN 0378-7060

The Council and Ministers for Education meeting within the Council stress the importance of the issues at stake in technical and vocational education and training and call upon the Commission to define procedures for implementing cooperation in this field. These forms of cooperation could be directed at different target groups or institutions: young people, teachers and trainers, educationalists, training establishments and economic and social partners. The interchange of information on different educational systems, facilitating the equivalence of qualification and mutual knowledge of vocational diplomas, would help those involved in training to perform their role in this cooperation to the full.

Euro tecno 89-93. Les enjeux européens des formations technologiques
Ministère de l'Education Nationale - Secrétariat d'Etat chargé de l'enseignement technique, Paris, 1989,
104 pp.
Secrétariat d'Etat chargé de l'enseignement technique,
61-65, rue Dutot,
F-75732 Paris
FR

Technical and vocational training must adapt and innovate if it is to meet the challenges of Europe. A seminar in Metz on this theme (in May 1989) has produced a review of technological and vocational training in France and Europe, identifying the European challenges facing such training. The main contributors discuss the following issues: the various models for the organization of vocational training in Europe; links between the production system and the training system; the training of engineers and advanced technicians; teaching content and method; and the certification and the recognition of what has been learned.

Etude comparative des qualifications de fin de scolarité obligatoire et de formation professionnelle, Volume I - rapport de synthèse
Gordon J., Commission of the European Communities - Directorate General V, Institut Européen d'Education et de Politique Sociale
1990, 67 pp. (national reports in Volumes II and III)
Institut Européen d'Education et de Politique Sociale, c/o Université de Paris IX-Dauphine,
Place du Maréchal de Lattre de Tassigny,
F-75116 Paris
FR

The aim of this report is to provide a comparative review of qualifications at the minimum school-leaving age and on completion of general and technical secondary education and vocational training in EC Member States. It also analyzes the qualifications required for admission to higher education. It briefly discusses the short streams of higher education, in other words courses that last less than three years. Volume I is a summary report on the main research findings and conclusions. It is based on twelve national reports, which all have the same structure. The national reports themselves are contained in Volumes II and III. The research focuses on the acquisition of State-recognized diplomas which lead to integration in the labour market for further studies.

Compendium of EUROTECNET projects
Commission of the European Communities, Task Force Human Resources, Education, Training, Youth, Brussels, 1991, 191 pp.
EUROTECNET, Technical Assistance Office, rue des Deux Eglises 37,
B-1040 Brussels
EN, FR

This compendium describes innovative training projects in each of the Member States launched as a result of EUROTECNET, the Community action programme in the field of new information technologies and vocational training. It looks at the organizers of the programme in each country and which aspect of new technology they emphasize in their choice of projects. The projects themselves are briefly described under the following headings: aims, focus of training innovation, technological applications, target group, learning methodology and the main economic sector involved.

Mieux se qualifier pour l'Europe de 1993: propositions pour les jeunes du CAP au baccalauréat professionnel

Andrieu J.
Ministère de l'Education Nationale, de la Jeunesse et des Sports, Paris, 1991, 52 pp.
Haut Comité Education Economie, 107 rue de Grenelle, F-75537 Paris
FR

This report by a working group under the Senior Committee for Education and the Economy is based on an evaluation of the training of level V and IV youngsters in four EC countries: Germany, the United Kingdom, Portugal and Spain. It then takes a closer look at France, identifying convergences and formulating six proposals, one of which is to reinforce alternance training.

B

FOREM – L'Office communautaire et régional de la formation professionnelle et de l'emploi

VDAB – Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding

CIDOC – Centre intercommunautaire de documentation pour la formation professionnelle

ICODOC – Intercommunautair documentatiecentrum voor beroepsopleiding

Boulevard de l'Empereur 11, B – 1000 Bruxelles, Tel.: 322+502 51 41, Fax: 322+511 29 60

Bibliography

Profiel van het tweede jaar Beroepsonderwijs - Leerkrachten in BSO, een zware job?
Onderzoek naar arbeidssatisfactie; schoolwerksfeer en onderwijsoriëntatie
Thys, L., G. Van De Ven and H. Vermoere
Centrum voor Sociaal-Psychopedagogisch Onderzoek (CSBO)
Centrale voor Studie- en Beroepsoriëntering en psycho-medisch-sociale centra (CSBO)
Brussels, CSBO, 1990, 116 pp. CSBO, M. Lemonnierlaan 129,
B-1000 Brussels

This is one of a series of three reports examining differing aspects of the situation of vocational education (second year) in Flanders. It approaches the subject from the teachers' angle: what do the men and women at the sharp end think of their job, and how do they tackle it? This examination of the teachers' viewpoint must be seen as a necessary complement to the study of selection mechanisms and the student profile which was carried out with a view to supporting the renewal process in vocational education. A research instrument known as IBES (an acronym standing for "instrument for description and evaluation of school functioning") was used to survey teachers' views.

Research projects of innovations

Enseignement professionnel - Bilan et perspectives
Pjetri J., Gublet B.
service Intervention Recherche Jeunes a.s.b.l. SYNERGIE
rue des Alliés 307, B-1060 Brussels, February 1992, 188 pp. with annexes.
FR

This major piece of research, commissioned by the King Baudouin Foundation and the Education Ministry for the French-speaking Community in Belgium, sees vocational education as torn between the logic inherent in the school education system and the changing demands of employers as they face up to the future challenges of the world economy. The methodology, based on a survey conducted by sending a questionnaire to 395 schools providing this type of instruction, sheds light on the internal parameters of the vocational school as well as the relations between this type of school and the workplace. Having updated the statistics on the school populations in the four forms of this type of education, the researchers discuss at length the three bodies of opinion on the relations between the school and the workplace in terms of their structures and the attitudes of the participants on the two sides. The completed research suggests new lines of thought on the dynamics of education, socialization, exclusion, training and qualifications, work and employment. The report ends with eight recommendations for action, the aim being to upgrade the vocational and above all the job-skill nature of this teaching, stimulating educational research, recognition of trainers' expertise and synergy with the workplace.

Interuniversitair onderzoek naar de beïnvloedende factoren op studiemotivatie tot verdere bekwaming en vorming bij leerlingen uit het beroepsonderwijs
Verhofstadt, L., R. Baekelmans and D. Berings
Ghent University, FCFO project (ministerial initiative)
Duration: 1989 - 1992

The purpose of this research project was to build up a picture of the extent and distribution of "school fatigue" with a view to tackling and preventing it. A questionnaire completed by 89 teachers showed that 75 percent felt it to be a real problem, with the proportion of students affected put at 32 percent. A second questionnaire completed by 216 teenagers focused on their attitudes, motivations and expectations in relation to education and work. Finally, to measure school fatigue a questionnaire was compiled to measure three aspects: (1) how pupils experience school (cognitive), (2) the extent to which pupils experience negative emotions in class (emotional), and (3) the extent to which pupils commit themselves to study. This questionnaire was completed by 429 pupils in the third year of secondary education. Analysis of the responses to the three questionnaires found a link between school fatigue and: (1) the number of years that pupils had fallen behind, and (2) low motivation to perform well, in and out of school. The ultimate purpose of the project is to compile a booklet with advice for parents, teachers, counsellors etc. and to develop concrete recommendations for policy-makers in connection with the organization of systematic support for teachers in the fight against school fatigue.

Useful addresses

Bodies responsible for technical education and coordination

French-speaking Community:

Direction d'administration de l'organisation des études
M. José Dooms
rue de la Science 43
B-1040 Brussels
Tel.: 02 / 238 87 16
Fax: 02 / 238 86 97

Commission permanente de l'enseignement neutre subventionné (CPONS)
rue des Halles
B-1000 Brussels
Tel.: 02 / 217 55 20

Fédération nationale de l'enseignement secondaire catholique (FNESEC)
rue du Commerce 82
B-1040 Brussels
Tel.: 02 / 507 07 52
Fax: 02 / 507 07 46

- Flemish-speaking community

Departement Onderwijs - Administratie Secundair Onderwijs
De inspecteur-coördinateur - TSO - BSO - BUSO
RAC - Arcadengebouw 5de verdieping
B-1010 Brussels
Tel.: 02 - 210 51 11
Fax: 02 - 210 53 72

De Vlaamse Onderwijsraad (Vl.O.R.)
(Flemish Education Council)
Jozef-II-straat 68
B-1040 Brussels
Tel.: 02 - 231 00 17
Fax: 02 - 230 69 70

The Flemish Education Council, which began functioning on 17 April 1991, has the job of engaging in research and consultation and advising the Flemish Community Minister of Education in relation to the entire Flemish education system, educational levels and sectors. The general council, councils and sections comprise representatives of education providers, of representative organizations of parent associations and of the world of business and employment and, where necessary, of experts.

Within the Council for Secondary Education the technical and vocational secondary education section (which replaces the former High Council for Technical and Vocational Secondary Education) is mainly concerned with links with industry. Committees are being established for each industrial sector which will issue instructions on the basis of occupational profiles regarding objectives and programmes for the various study areas.

Research institutes

Katholieke Universiteit Leuven
Hoger Instituut voor de Arbeid (HIVA)
E. van Evertstraat 2 E
B-3000 Leuven
Tel.: 016 - 28 33 15

Université de Liège - Service de pédagogie expérimentale - Faculté de psychologie et des sciences de l'éducation
boulevard du Rectorat 5 - B.32
B-4000 Liège (Sart tilman)
Tel.: 041 / 56 20 51
Fax: 041 / 56 20 75

DK

SEL
STATENS ERHVERVSPÆDAGOGISKE LÆRERUDDANNELSE

Rigensgade 13
DK-1316 København K
Tel.: 4533+14 41 14
Fax: 4533+14 42 14

Bibliography

Erhvervsuddannelser efter 9. og 10. klasse
Rådet for Uddannelses- og erhvervsvejledning, København, RUE, 1991, 131 p.
ISBN 87-7773-0186

Annually a handbook containing a description of vocational education and training courses in Denmark is produced and distributed through the schools. All courses open to school-leavers are described, and the structure, content and admission requirements of each course are presented as well as the corresponding job profile. Opportunities for further training courses are also presented. Included is a list of all vocational schools in Denmark including the new welfare- and health training schools. This manual is a very important instrument in guiding young people in the transition process from primary and lower secondary school to vocational education institutions.

Reformen - om styring og samarbejde
Undervisnings- og Forskningsministeriet, Direktoratet for Erhvervsuddannelserne, København, Undervisningsministeriet, 1990, 33 p.
(Erhvervsuddannelserne)

Since 1990, vocational education and training has undergone major changes. The whole system has been transformed. This pamphlet from the Danish Ministry of Education outlines the changes that have taken place: fewer and more coherent courses, structure and content of courses, rules of admission, decentralization, financial reform, the role of the companies and schools in the dual system, the interplay between state and social partners in the system, the management of schools etc.

Renewal of Vocational Training in Denmark
The Danish contribution to PETRA research strand, theme 1: National responses to changing needs for vocational skills
Houman Sørensen J.
Danish Technological Institute,
Tåstrup, 1990, 83 p.

This analysis of the renewal processes within Danish vocational training contains two parts: a general description of the system and a study of a number of examples of how the renewal process is arranged. The study is based on existing documentary material, of course, and a lot of interviews (a total of 28) with central decision makers. Thus the study gives the first comprehensive description and analysis of the new reform of the vocational training system. It also explains in great detail the dynamic characteristics of the Danish vocational system and identifies the mechanisms by which qualification needs are translated into new education. The methods of renewal applied in Denmark are evaluated.

Ongoing research

Vocational education and training reform in Denmark
A documentation and development project.
Project manager: J. Houman Sørensen
Statens Erhvervspædagogiske Læreruddannelse (SEL)

SEL has started a major research project on central aspects of the new vocational education and training reform. The project will document the activities of the first year of the reform (the school year 1991-92) and initiate new development projects together with technical and commercial schools involved. The overall project has been split up in 5 parts: 1) Decentralization and educational planning, 2) Decentralization and integrated teaching methods, 3) 1st school period (the first 20 weeks of a course), 4) 2nd school period (the second period of 20 weeks of a course) and the progress of the trainees, 5) 2nd school period and the examination problems.

The project will be running through 1992-93, and reports will be produced within the different themes of the project.

The school-company interplay in the Danish dual vocational education system
Project manager: J. Houman Sørensen
Statens Erhvervspædagogiske Læreruddannelse (SEL)

The purpose of this project is, based on empirical analyses of the school-company interplay within different branches of industry, to contribute to the development of teachers' skills in upgrading this important interplay. The project will during one year try to identify the importance of the different phases of vocational education and training in order to evaluate the development of trainees' qualifications. A further purpose of the project is to increase vocational teachers' knowledge of the practical learning processes within companies so that new tendencies in technology and work organization can be transformed into school teaching as quickly as possible, and so that trainees' work-place experience can be better integrated in school teaching.

Useful addresses

Arbejdsmarkedsstyrelsen (AMS)
Hejrevej 43
DK-2400 København NV
Tel.: +45/38 17 20 00
Fax: +45/38 17 27 20

Dansk Teknologisk Institut (DTI)
Gregersenvej
DK-2630 Tåstrup
Tel.: +45/42 99 66 11
Fax: +45/42 99 54 36

Roskilde Universitetscenter (RUC)
Erhvervs- og voksenuddannelses-gruppen
Postbox 260
DK-4000 Roskilde
Tel.: +45/46 75 77 11
Fax: +45/46 75 74 01

Statens Erhvervspædagogiske Læreruddannelse (SEL)
Rigensgade 13
DK-1316 København K
Tel.: +45/33 14 41 14
Fax: +45/33 14 42 14

Undervisningsministeriet
Erhvervsskoleafdelingen
H.C. Andersens Boulevard 41-45
DK-1553 København V
Tel.: +45/33 92 56 00
Fax: +45/33 92 55 47

Ålborg Universitetscenter (AUC)
Institut for Sociale Forhold og Organisation
Langagervej 2, Postbox 159
DK-9100 Ålborg
Tel.: +45/98 15 85 22
Fax: +45/98 15 75 75

D

Bundesinstitut für Berufsbildung
Fehrbelliner Platz 3
D-W-1000 Berlin 31
Tel.: 4930+864300
Fax: 4930+864 324 55

Bibliography

Fachschulen für Technik in den Ländern der Bundesrepublik Deutschland und Berlin-West, 3.Ausgabe
Ed. Helbing, W., et al.
Bundesverband staatlich geprüfter Techniker e.V. (BVT)
1990, 252 p.
Techniker Institut des BVT,
Baumschulenweg 6,
D-5330 Königswinter 21

A documentation on continuing training to qualify as a state-examined technician (m/f) and a listing of specialized technical schools. With this book, the BVT addresses those skilled workers, journeymen, and qualified assistants who are interested in vocational advancement by qualifying as technicians (specialized technical schools) and are looking for the necessary advice. It is also intended for those working in the counselling field.

Useful addresses

Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (KMK)
Nassestr. 8
Postfach 2240
D-5300 Bonn 1
Tel.: 0228/501-0
Fax: 0228/501-301

GR

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΕΘΝΙΚΗΣ
ΠΑΙΔΕΙΑΣ & ΘΡΗΣΚΕΥΜΑΤΩΝ
ΠΑΙΔΑΓΩΓΙΚΟ
ΙΝΣΤΙΤΟΥΤΟ

Pedagogical Institute
Ministry of National Education and Religion
396 Mesogeion Street
GR–Athens
Tel.: 301+639 25 10
Fax: 301+656 73 70

Bibliografical references

Ekpaidefsi - nees technologies - apascholisi
(Education - new technology - employment)
Dimitropoulos V.
Ethniko Metsovio Polytechneio (EMP)
Octovriou 42, GR-10682 Athens,
1991, 485 p.

This study investigates to what extent Technical-Vocational Lycea (TVL) prepare the graduates properly for the labour market, how many graduates are placed in it, what percentage is occupied in their speciality and to what extent they are trained to practise successfully a vocation relevant to their school-based training. Policy recommendations are made for improving the quality of training in TVL and for creating new educational institutions for vocational training.

I epangelmatiki ekpaidefsi kai to "systima tis epangelmatikis ekpaidefsis-katartisis" pou eisagei to Ypoyrgeio Paideias
(Vocational edcuation and the "system of vocational education and training" introduced by the Ministry of education)
Paterakis G.
Poste Restante Stavrou Attikis,
GR-15303, "Ta ekpaideftika", 1992,
195 p.

This is a criticism of the new national system of vocational education and training. The main objectives of it are:
1) to solve the problem of secondary education graduates who do not enter higher education by creating new forms of vocational preparation,
2) to classify a great number of private schools, already operating in Greece, by creating a new level in the educational pyramid, that of the Institutes of Vocational Education and Training.
The author makes his own proposals for the establishment of the institutes of vocational training.

I Techniki-Epangelmatiki kai Technologiki Ekpaidefsi: Provlimata kai Prooptikes en opsei toy 2000
(Technical Vocational and Technological Education: Problems and prospects towards the year 2000)
Psacharopoulos G.; Palaiokrassas S.
Ekpaidefsi kai Epangelma, Athens,
1990, pp. 217-230
ISSN 1011-3622

This paper reviews the most important trends, which follow the development of technical-vocational and technological education in Greece, and attempts to analyze the main problems which have appeared. This diagnosis is considered necessary in order to outline alternative proposals for educational policies for the year 2000.

Koinoniko-choriki theorisi tis mesis epangelmatikis ekpaidefsis.
(Socio-spatial aspects of secondary vocational education)
Panagiotopoulou I.

Ethniko Metsovio Polytechneio (EMP)
Oktovriou 48, GR-10682 Athens, 1991, 624 p.

Although the educational reforms of 1976-77 and 1983-85 gave priority to the development of technical-vocational education, its enrolment constitutes only a small fraction of the total secondary education enrolment. The author describes the structure and the evolution of the secondary technical-vocational education since 1976 and analyzes the reasons which have influenced the development of this type of education.

O prosanatolismos ton ellinidon mathitrion pros tin mesi techniki ekpaidefsi
(Female students' orientation towards secondary technical education)
Kassotakis M.
in: Ekpaidefsi kai Epangelma, Athens, Greece, 1991, pp. 159-180
ISSN 1011-3622

This article examines the educational, cultural and socio-economic characteristics of female students, who choose technical education schools, as well as their views and attitudes towards the education, career and social role of women. Reasons for their unwillingness to attend Technical Lyceum are also examined.

The technical-vocational lyceum in Greece
Panagiotopoulou I.
University of Sheffield, Institute of Education
Sheffield S10 2TN, GB-England, 1990, 200 p.
EN

This study attempts to explore the process technical-vocational lyceum (TVL) schooling. It descibes the historical and recent development of secondary technical-vocational education in Greece. It also examines the role of TVL within the entire educational system and the relationship between education, economy and social class mobility. Moreover, the study argues that TVL represents the track whose main role is to block working class children from entering the university.

The technical-vocational lyceum in Greece
Karadija-Stavlioti E.
University of London, Institute of Education,
20 Bedford Way, London WC1H 0AL, GB-England, 1991, 98 p.
EN

During the last three decades the expansion of provision of technical-vocational education has proceeded apace around the world in both developed and developing countries. In the 1980s their vocational education "fact" spread to Greece. This dissertation examines the Greek vocational experiment to discover whether Greek experience of vocational education is different from experience elsewhere in the world. The author recommends changes in Greek educational policy.

Technologia Ekpaidefsi Anaptyxi (Technology, Education, Development)
Papatheodosiou Th.
Athens, Greece, Ekdoseis Lychnos, 1991, 101 p.
ISBN 960-85013-7-7

This book incorporates reports on conferences, seminars, meetings, etc. referring to technology development and education. These reports are based on data collected by the Institute of Technological Education (ITE) through several studies. They specifically refer to the Greek education and training system, European trends, new specializations in the labour market and school-industry links.

Ongoing research

Evaluation of the apprenticeship system of Manpower Employment (OAED): Reorganization of study programs and experimental implementation of new educational projects, OAED, Athens, 1991

Needs for technical education in Greek industry
Institute for Economic and Industrial Research (IOVE),
12-14 Mitropoleos Str.,
GR-10563 Athens

Useful Addresses

Federation of Greek Industries (SEV)
5 Xenofontos Str.
GR-10557 Athens
Tel.: 00301/32 55 531
Fax: 00301/32 22 929

Manpower Employment Organization (OAED)
8 Thrakis Str.
GR-16610 Glyfada
Tel.: 00301/99 42 810
Fax: 00301/99 37 301

Ministry of National Education and Religious Affairs
Directorate for Secondary Education
15 Mitropoleos Str.
GR-10585 Athens
Tel.: 00301/32 46 039
Fax: 00301/32 48 264

Vocational Education and Training Organization (VETO)
1 Ilioupoleos Str.
GR-11631 Athens

Pedagogical Institute (P.I.)
396 Mesogeion Ave.
GR-15341 Ag. Paraskevi
Tel.: 00301/65 67 370, 63 92 510
Fax: 00301/65 67 370

Technical and Vocational Teacher Training School (SELETE)
GR-14121 Iraklio
Tel.: 00301/28 20 212
Fax: 00301/28 21 094

E inem

Instituto Nacional de Empleo
Condesa de Venadito, 9
E-28027 Madrid
Tel.: 341+585 95 82
Fax: 341+268 39 81

Bibliography

El diseño curricular en formación ocupacional
Pon Barcelo', E.
In: Herramientas, Revista de Formación para el empleo (Madrid), 18, 1991, pp. 4-26
Glorieta de Cuatro Caminos 6 y 7, E-28020 Madrid
Tel.: 91 - 535 1017

This article analyzes the relationship between vocational education and the labour market and the differences between vocational education (for which the education ministry is responsible) and job-related training (for which the labour ministry is responsible). Three scenarios are set out for coordinating the two types, technical/vocational and job-related.

Plan de la reforma de la formación profesional
Ministerio de Educación y Ciencia, 1992, 194 pp.
c/Alcalá 34-36, E-28071 Madrid
Tel.: 91 - 522 11 00
Fax: 91 - 521 37 75

This document sets out the lines to be followed in vocational education in the future: the intensification of links between educational institutions and industry, the integration of basic vocational education into secondary education, the development of a new structure of qualifications, the development of a system of teacher selection and training and the creation of a system of vocational guidance.

Formación profesional en alternancia, evaluación de la experiencia vasca
Departamento de Educación, Universidades e Investigación del Gobierno VascoVitoria, Servicio Central de Publicaciones del Gobierno Vasco,
1990, 175 pp.
ISBN 84-7542-760-X

This report considers the utility of the knowledge and skills acquired by students at colleges of vocational education and evaluates collaboration in the form of alternance training between the education system and industry. It is divided into three main parts, together with a methodological introductory chapter, showing the viewpoints of the groups concerned: students, college teachers and company instructors. A final chapter provides a comparative analysis of the three groups studied and an evaluation of the shortcomings and potential of alternance training. The report covers the Basque Country.

La educación del sentido de la iniciativa
Tolosa Cidón, C.
In: Revista de Educación, Madrid, 293, 1990, pp. 185-202
ISSN 0034-8082

This article focuses on the theme of educating young people for enterprise in response to the changes taking place in the structure of production, the labour market and the education system. It details and analyzes a series of concrete experiments by young entrepreneurs who have launched projects involving self-employment or business creation and educational experiments conducted both within the education system and in non-formal education.

La reforma de la enseñanza técnico-profesional
Asi's Blas, F.D., I. Borinaga, A. Corral and J. Gabiña Vitoria, Servicio Central de Publicaciones del Gobierno Vasco,
1991, 80 pp.
ISBN 84-7542-915-7

This document comprises the papers for the technical conference on the reform of vocational education held in Bilbao on 2 July 1990. The first contains a series of reflections on the conditions which must be met if the reforms set out in the General Organization of the Education System Act (LOGSE) are to succeed, emphasizing that the development of high-quality professional education requires a knowledge of the social and economic context. The remaining papers focus on the design of the new vocational modules in a given local domain, the level at which the holders of mainstream vocational qualifications enter employment, alternance training, the structure and evolution of occupations and occupational profiles in the Basque Autonomous Region.

Research in progress

Transition from vocational education to the world of work. The design, testing and evaluation of vocational-training modules using distance-learning methodology
University Institute of Education of the National University of Distance Education (UNED)

The purpose of this research is to provide a basis for the development of vocational-education modules at levels 2 and 3 as envisaged in the General Organization of the Education System Act (LOGSE) and to improve training provision by introducing distance-learning approaches alongside the face-to-face approaches already used. The objectives are to construct apprenticeship syllabuses for a significant number of qualifications and subjects not suited to student-directed non-face-to-face training, in concrete terms the didactic structure of a vocational-training module.

Employment study for the purpose of designing vocational training for the Rioja Baja district
This employment study of the Rioja Baja district is aimed at helping government, colleges and industry to cooperate on optimizing existing training resources, training provision and deliberative and decision-making procedures in the design of vocational education, in response to the demands of the labour market and of students (great distances to colleges). The ultimate aim is to bring vocational education into line with real needs.

Curricular material in the technology field
The aim is to develop six Teaching Units as specific curricular material in the technology field for pupils in compulsory secondary education. The Units will be defined in terms of their place in the curriculum, their objectives and the skills they aim to teach, the areas of content from which they start, and their sequencing and evaluation criteria. The notion of managed technology is defined as: "a complex of processes which involve the innovation, manufacture, use and knowledge of objects and are capable of modifying the environment of human beings with a view to satisfying certain needs or promoting their interests" (social, historical, scientific and technical elements).

Useful addresses

Institutions responsible for technical education

Dirección General de Formación Profesional Reglada
(Directorate General of Regulated Vocational Education)
"Proyecto de renovación de los contenidos de Formación Profesional"
c/ Argumosa 43, Pabellón 5
Tel.: 528 52 47
E-28014 Madrid

Address in the near future
Pl. del Marques de Salamanca no. 11, 3 Izq.
E-28006 Madrid
Tel.: 341 - 435 13 86
Fax. 341 - 577 44 54

Research organizations

Centro de Investigación, Documentación y Evaluación (CIDE)
Ciudad Universitaria s/n,
E-28040 Madrid
Tel.: 341 - 549 77 00
Fax. 341 - 543 73 90

F

centre inffo

Tour Europe Cedex 07
F–92080 Paris–la–Défense
Tel.: 331+477 813 50
Fax: 331+477 374 20

Bibliography

L'enseignement professionnel en France: des ouvriers aux techniciens
Tanguy L.
Paris, PUF, 1991, 227 pp.
ISBN 2-13-043393-6

This book describes the social morphology of vocational education teachers, their career paths and also the direction that they impart to their work and the main aspects of their training practices. Based on a historical analysis and a sample of teachers, the research has a twofold aim: to describe the practices and values of former workers who become teachers and to construct an analytical method that will clarify the nature of institutions and the development of vocational training

Quelles formations pour les ouvriers et les employés en France - Rapport de mission à Monsieur le Secrétaire d'Etat chargé de l'Enseignement technique
Tanguy L.
Paris, Ministère de l'Education Nationale de la Jeunesse et des Sports, 1991, 179 pp.
Ministère de l'Education Nationale,
110 rue de Grenelle,
F-75700 Paris

This report to the Secretary of State responsible for technical education looks at the job skills required of qualified shopfloor and office workers and identifies the sectors in which the needs occur. It describes the vocational diplomas and makes recommendations for the future.

A Renault Billancourt, le CERTA
in: Flash Formation Continue (Grenoble), 299, 1990, pp.8-10
ISSN 0397-3640

A brief description of the Centre de Ressources de Technologies Avancées, Productique Ile-de-France, a group jointly funded by the Education Ministry, Renault and the region of Ile-de-France. This advanced technology resource centre offers school pupils, trainees, teachers in technical education and those training to be trainers an opportunity to train with production technology using equipment on the same scale as in the working world.

Eduquer pour demain: acteurs et partenaires

Commissariat général du plan
Paris, La Découverte,
La Documentation Française, 1991,
362 pp.
ISBN 2-7071-2046-4

This is a compilation of the findings of research on the future of the French educational system, conducted in 1990 and 1991 by four working groups set up by the Office of the General Commissioner for the Plan. It covers the diversification and personalization of training in the school, the autonomy of lycées and technical schools, an evaluation of the initial training system and the outlook for the funding of education up to the year 2005.

Rapport d'étape sur le développement de l'apprentissage et de la formation en alternance

Greffe X.
Paris, Ministère du Travail et de l'Emploi, 1991, 57 pp.
Ministère du Travail et de l'Emploi,
Délégation Générale pour le développement de l'apprentissage et de la formation en alternance,
127 rue de Grenelle,
F-75700 Paris

In the light of experience in the field, the author of this progress report specifies the prerequisites and recommends some forty measures that would inject fresh life into apprenticeship and alternance training provided in the school context. He suggests changes to itineraries through the school, an internal reorganization of alternance establishments and partnership and consultation between public institutions and enterprises.

Sorties sans diplômes, sorties sans qualifications: deux réalités différentes

in: Note d'Information de la DEP (Paris), 27,
1991, pp.1-4
ISSN 0759-8440

The levels of education attained by those young people who leave school without a diploma are very disparate, ranging up to level IV. Those who leave school without qualifications tend to be at levels VI and V bis, in other words the lowest levels. Since 1986 there has been a considerable reduction in the number leaving without a diploma, mainly due to the fall at level V. The reduction in the number leaving without qualifications is only slight.

Le système éducatif

Durand-Prinborgne C.
in: Les Cahiers Français (Paris), 249,
1991, pp. 3-96
ISSN 0008-0217

This monograph gives a detailed description of the components of education in France, from the primary to the higher level, and looks at present-day problems and issues: guidance, career outlets, academic failure, mass education, the explosive growth in numbers, the recruitment and training of teachers, decentralization and the sharing of responsibilities. It closes with a review of continuing training in France.

Ongoing research

L'investissement éducatif et son efficacité

Françoise Oeuvrard
Ministère de l'Education Nationale,
Direction de l'évaluation et de la perspective,
142 rue du Bac, F-75007 Paris

In 1991 the Education Ministry invited tenders for research on the theme of the "investment in education and its effectiveness". Fifteen projects were chosen, covering all levels and methods of initial and continuing training. The aspects studied were the effects on the individual, social effects, the effects on enterprises, the macro-economic effects and cultural effects. The following three research projects are those relating to the secondary level of the educational system.

Evolution de la demande sociale et de l'offre de formation dans le système éducatif

Université de Picardie, Centre universitaire de recherches sociologiques d'Amiens (CURSA),
Catherine Agulhon

This research on developments in the social demands for and supply of training in educational system aims at shedding light on the role of educational staff and the families of pupils in redefining the provision of training in the various streams of the educational system (duration of project: 18 months).

Genèse et usages sociaux d'une formation: le cas de baccalauréats professionnels

Centre d'études et de recherches sur les qualifications (CEREQ), Myriam Campinos-Dubernet

The purpose of this research is to take a balanced look at the original intentions underlying the introduction of the vocational baccalaureate, and the uses that employers make of holders of that diploma. It is to investigate the opinions of those holding the diploma on the work they do and their status (duration: 2 years).

Des savoirs de référence aux savoirs enseignables ou enseignés. Efficacité de l'interaction élèves-enseignants et évaluation au baccalauréat

Groupement de recherches "Institutions, emploi et politique économique". CNRS, Elisabeth Chatel. Research findings available in autumn 1993.

Research on the teaching and learning of economic and social science, relating the practices of those involved to the end results (knowledge taught and knowledge required, and baccalaureate results) (duration: 2 years).

Useful addresses

Association française pour le développement de l'enseignement technique (AFDET)
178 rue du Temple
F-75003 Paris
Tel.: 331/42 74 00 64

An association for the development of technical education founded in 1902, and granted the status of a body in the public interest, its role is to bring together those individuals and corporate bodies concerned with matters of technical education, vocational training and young people's integration, by promoting cooperation between school and the workplace.
Quarterly journal: l'Enseignement technique.
Under production: a memorandum for the 5 000 to 6 000 "technical education counsellors" in France. These counsellors are nominated from industry every six years by the Education Ministry. They provide professional support to educational establishments, serve on examination boards, etc.

Commission Nationale Education-Professions (CNEP)
Pièce 205 B,
107 rue de Grenelle
F-75007 Paris
Tel.: 331/49 55 18 97

The national committee on education and occupations was founded by a decree 31 March 1992, and comes under the Minister of Education. Its members are representatives of employers' associations and the unions, together with experts. It is consulted on guidelines for and the implementation of policies defining training and the planning of job-related diplomas, careers information and guidance for school pupils and students and the organization of consultation between the Education Ministry and representatives of occupations. Its secretary is appointed by the Education Minister.

Haut Comité Education-Economie (HCEE)
107 boulevard de Grenelle
F-75007 Paris
Tel.: 331/49 55 12 60
Fax: 331/45 55 48 20

Founded by a decree in 1986, this senior committee is responsible for continuing consultation at the highest level between the Education Ministry and its economic partners. Its terms of reference are to suggest measures to the Education Minister to bring the educational system closer to the working world.

Jeunesse et Entreprises (JE)
44 avenue d'Iéna
F-75116 Paris
Tel.: 331/47 20 52 33
Fax: 331/40 70 98 61

An association granted the status of a body in the public interest, founded in 1966 under the auspices of the Ministry of Education, is has a membership of some two hundred enterprises. Its aim is to help employers to give today's young people the skills and work experience that will promote competitiveness in the future.

In 1992, as part of its campaign to establish a better understanding between employers and class IV pupils, Jeunesse et Entreprises published a guidance booklet entitled "Bien dans ton métier". Distributed to 750 000 young people, it describes careers, sectors and the workplace.

IRL

FÁS
AN FORAS ÁISEANNA SAOTHAIR
THE TRAINING & EMPLOYMENT AUTHORITY

27–33 Upper Baggot Street
Dublin 4
Tel.: 3531+68 57 77
Fax: 3531+60 90 93

Technical and Vocational Education

Achievement and Aspiration: Curricular Initiatives in Irish Post-Primary Education in the 1980s
McNamara G., Williams W., Hannon D. (eds.)
Dublin, Drumcondra Teachers Centre, 1990, 147 p.
ISBN 0-9515744-0-X

The new Junior Certificate, the Transition Year Option, the Vocational Preparation and Training Programme, the European Pilot Projects and Health Education are among some of the important curricular initiatives of recent years. In this publication leading educationalists write of these and other important initiatives in Irish education. It shows how educators responded to the demands of the 1980s and considers the practical implications of these achievements for the curriculum of the 1990s and beyond.

Beyond School
Stokes D.
Dublin, Curriculum Development Unit, Department of Education, 1988, 53 p.
ISBN 0-946791-06-6

This report was based on a pilot project conducted under the second European Community Action Programme on Transition of Young People from Education to Adult and Working Life. Major issues, identified in the First Action Programmes were explored, e.g. work experience, equality of opportunity, better education and vocational training, and new forms of assessment and certification.

Education Bill 1991
Minister for Education
Dublin, Stationary Office, 1991, 11 p.
Government Publications Sales Office, Sun Alliance House, Molesworth Street, IRL-Dublin 2

Under the Act, the Minister for Education is obliged to provide primary and post-primary education to all persons of school age who enrol in such schools. The Minister also guarantees to implement educational policy including the establishment of a Curriculum Review Board for the purpose of undertaking a periodic review of the curriculum in primary and post-primary schools.

The Education System in Ireland
Department of Education
Dublin, Stationary Office, 1991, 23 p.
Government Publications Sales Office, Sun Alliance House, Molesworth Street, IRL-Dublin 2

This report sets out the responsibilities of the Government for education and goes on to outline the structure and functions of the various providers of education at first lower second, upper second and third levels, together with a section on adult and community education.

The FAS Development Plan 1989-1993 - A Summary
FAS - The Training and Employment Authority
Dublin, FAS, P.O.Box 456, 27/33 Upper Baggot Street, IRL-Dublin 4, 1990, 14 p.

The 5-year plan which is concerned with manpower policy geared to ensuring that sufficient and suitable skills are made available to meet future demands, is concerned also with the protection of existing employment. Among the issues addressed is the introduction of an integrated programme of vocational education/training and work experience for those who leave school without any certified qualifications.

Initial Training for Young People - Ireland
PETRA
B-1040 Brussels,
Square Ambiorix 32
1989, 21 p.

The report presents the social and economic background against which an overview of recent developments in education and training may be assessed. Steps are being taken to strengthen the vocational preparation component of courses before and after the end of compulsory school to cater for a wider variety of needs than hitherto. Emphasis is placed also on strengthening technical education at Leaving Certificate level.

Irish Education Policy: Process and Substance
Mulcahy D.G.; O'Sullivan D. (ed.)
Dublin, Institute of Public Administration (IPA), 1989, 284 p.
ISBN 0-906980-96-8

This is the first full-length study of educational policy in contemporary Ireland. Topics include approaches to second-level curriculum, the interaction of policy with research and evaluation, and the calibre of ideas deployed to fuel educational planning. The contributors are drawn from the educational and research communities including those who have contributed to the formulation of educational policy.

The Quality of their Education: School Leavers' View of Educational Objectives and Outcomes
Hannan D.F.; Shortall S.
Dublin, The Economic and Social Research Institute (ESRI), 1991
ISBN 0-7070-0120-X

Extensive interviews were carried out in late 1987 with a large sample of school leavers who had first left school in 1981/82. This study is the first to look at young people's assessments of their education since the mid-1970s and the first ever in Ireland to examine the "mature judgements" of ex-pupils after spending some time out of education. Having spent 5 years in the labour market, their assessment on leaving school can be compared to their actual labour market experiences.

Regional Technical Colleges Bill, 1991
Minister for Education
Dublin, Stationary Office, 1991, 22 p.
Government Publications Sales Office, Sun Alliance House, Molesworth Street, IRL-Dublin 2

The purpose of the bill is to statutorily establish as Regional Technical Colleges the existing nine such colleges. Provision is made in the Bill to bring other educational institutions within its scope in the future, as well as changing the name of a college were required. The Bill also sets out the functions of the various colleges.

A Time for Change: Industrial Policies for the 1990s Industrial Policy Review Group
Dublin, Stationary Office,
1992, 110 p.
Government Publications Sales Office,
Sun Alliance House,
Molesworth Street,
IRL-Dublin 2

This is a major report which has generated considerable public discussion. It reviewed and made recommendations on industrial policy in Ireland and on public policy as it affects industrial development. Dealing with education, enterprise and technology the report states "Despite its enviable academic standards, the Irish education and training system has serious gaps when it comes to technical and vocational education". Among its recommendations is that a higher priority must be attached in the education system to the acquisition of usable and marketable skills.

Useful addresses

Department of Education*
Marlborough Street
IRL-Dublin 1
Tel.: 01/73 40 0
Fax: 01/72 95 53

FAS, The Training and Employment Authority
P.O.Box 456
27/33 Upper Baggot Street
IRL-Dublin 4
Tel.: 01/68 57 77
Fax: 01/68 26 91

CERT - The Hotel, Catering and Tourism Training Agency
CERT House
Amiens Street
IRL-Dublin 1
Tel.: 01/74 25 55
Fax: 01/74 28 21

Teagasc - Agriculture and Food Development Authority
19 Sandymount Avenue
IRL-Dublin 4
Tel.: 01/68 81 88
Fax: 01/68 80 23

---

* The Department is responsible for administration of public education, primary, post-primary and special education. Vocational schools are funded by the State and run by vocational Education Committees consisting of elected representatives and experienced education/industrial personnel. There are approximately 38 such committees in Ireland representing counties and city and town boroughs.

I

Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori
Via G.B. Morgagni, 33
I-00161 Roma
Tel.: 396+44 59 01
Fax: 396+884 58 83

Bibliography

La Competenza Experta. Sapere professionale e contesti di lavoro
Ajello, Anna Maria; Cevoli, Marida; Meghnagi, Saul.
Rome, Ediesse s.r.l.,
1992, 143p.
Via dei Frentani 4/A,
00185 Rome

The authors discuss the concept of vocational expertise, taking as their point of departure the changing socio-occupational contexts and their implications for the acquisition and use of job expertise. They focus on the idea of vocational skill as a combination of technical abilities and knowledge in general, the capacity to identify and perform duties that cannot readily be defined in advance. The impact of new technology on work is analyzed, together with the effects of organization as a variable and the routes through which job skills are acquired. A multi-disciplinary approach is applied to the subject of learning and using job-related knowledge.

Insegnanti, formazione iniziale e formazione continua
Corda Costa, Maria; Megnagi, Saul (ed.)
Rome, La Nuova Italia Scientifica,
1990, 190pp.
Via Sardegna 50,
I - 00187 Rome

This research, promoted by the Istituto di Ricerche Economiche e Sociali (IRES) a research institute of the trade union federation Confederazione Generale Italiana Lavoratori (CGIL), shows how the inadequacies of initial and continuing teacher training is an anomaly peculiar to the Italian school system, compared to the European system. Among the subjects covered are: the specific process whereby teachers acquire their initial and advanced skills, the constraints on that process of acquisition and the resources; the special features of a reference occupational profile; the important role of the university in this field; and the responsibilities and institutional bases of the trainers of trainers. A close look is taken at the problem of retraining teachers in technical and adult education. Regarding the technical education, researchers highlight the need to update training and relate it more closely to the working world and the training and employment system, both nationally and locally. Regarding adult education, they consider the specific curricula required for adults and the implications for the initial and in-service training for teachers.

Il Progetto della Commissione Brocca. Piani di studio della Scuola Secondaria Superiore e programme del biennio
Zuccon, G. C. (ed.)
Brescia, Editrice La Scuola,
1991, 360p.
ISBN 88-350-8508-X

The ministerial committee chaired by the parliamentarian Mr. Brocca has brought about sweeping changes in the content of studies in upper secondary education, in the form of new study plans and new curricula. Following an introduction on the reasons underlying the project, the book gives a detailed description of the new set of curricula for an initial two-year period. The options are: classics, languages, socio-psycho-pedagogy, science, science/technology, technology (with 10 options over a three-year period), economics (two options in the three-year period), arts and vocational studies. The study plans for the two-year period state of the core subjects taken by all pupils regardless of the options they choose, core subjects for groups of options and specific subjects for each individual option.

L'Istruzione professionale. Una formazione per il futuro
Ministero della Pubblica Istruzione,
Direzione Generale Istruzione Professionale
Florence, Le Monnier, 1989, 180pp.,
series "Studi e documenti" in the "Annali della Pubblica Istruzione",
no. 49.

Project '92, an experiment promoted by the Italian Education Ministry, is a radical curricular reform of vocational education.

The factors inspiring the Project were certain pressing needs: to broaden basic education by reinforcing a core area of learning, to cut back sharply the number of qualifications and to rethink the post-qualification route (fourth and fifth year). Due to the latter factor in particular, various options are to be introduced. Young people will be able to continue on the training route, either by taking examinations and going on to the final two years of technical education or by taking further qualification courses, in conjunction with vocational training organized by the regions. Following the experiment, Project '92 will be institutionalized as from the next schoolyear, and will be extended to all courses over the next three years.

NL

cibb
centrum innovatie
beroepsonderwijs
bedrijfsleven

Verwersstraat 13–15
Postbus 1585
5200 BP 's Hertogenbusch
Tel.: 3173+12 40 11
Fax: 3173+12 34 25

Bibliography

Bedrijfsleven en beroepsonderwijs: nieuwe bondgenoten!
Ministry of Economic Affairs
The Hague, Ministry of Economic Affairs, 1992, 14 pp.
Ministry of Economic Affairs,
Postbus 20101,
NL-2500 EC The Hague

This paper focuses on the importance of high-quality vocational education as a factor in industrial competitiveness and on ways in which industry can help further strengthen it.
The Ministry of Economic Affairs, along with the Ministry of Social Affairs and Employment and the Ministry of Education and Science, is to launch "impulse programmes" to tackle the problem of the shortage in industry of people with a vocational education. The programmes' key purpose is to improve the match between educational provision and industry's needs.

BVE op weg naar 2000: beschouwing over de noodzakelijke vernieuwing van beroepsonderwijs en volwasseneducatie: visie-nota voorzittersoverleg MBO
Hover, C., P. Smets and R. Baarda
Voorburg, Smets - Hover Consultants for Professional Organizations, 1992, 26 pp.
Smets and Hover Consultancy,
Mauritskade 40,
NL-The Hague.

Regional Training Centres (ROCs) are combined facilities for vocational and adult education; this report considers their function in the light of the developing labour market, ending with a brief commentary on the government's policy paper on ROCs. The authors consider the situation on the labour market and find that people with an Intermediate Vocational Education (MBO) or Apprenticeship System qualification run the least risk of unemployment. The implication of this is that too many youngsters follow general or academic courses and too few seek vocational qualifications. Part of the ROCs' function is to increase participation in vocational and adult education. Also considered is their role in improving the match between educational provision and industry's needs.

Kansen op werk: een analyse van verdringing op de Nederlandse arbeidsmarkt: de relatie tussen opleiding en beroep, fase 2; SEO onderzoek

Belderbos, R.A., and C.N. Teulings
SEO, Amsterdam University Institute of Economic Research
Amsterdam, SEO, 1991, 155 pp.
ISBN 90-5220-001-7

Between 1979 and 1985 there was a marked degree of crowding out on the Dutch labour market. The more plentiful the supply of labour is relative to demand, the more selective employers become in taking on workers. This emerges in two ways: from job-seekers' likelihood of finding work and from an occupation-by-occupation analysis of job-finders. Attributes associated with appointment are elaborated. The requirements set for comparable jobs vary with the labour-market situation. One consequence of crowding out is that it becomes possible to read off from the results of the market process how occupations are rated. When the labour market is tight job-seekers can afford to be choosier and are thus likely to find work in more highly rated occupations. This fact allowed a rating order of occupations to be established in this empirical study.

Naar landelijke organen van het beroepsonderwijs

Ministry of Education and Science, Vocational and Adult Education Directorate
Zoetermeer, Ministry of Education and Science, 1992, 16 pp.
Ministry of Education and Science, Postbus 25000,
NL-2700 LZ Zoetermeer

This paper deals with the establishment of the national bodies for vocational education that will result from the merger of the Sectoral Training Councils (BOOBs) for Intermediate Vocational Education (MBO) and the current national bodies for the Apprenticeship System. Curricular harmonization between MBO and the Apprenticeship System will enable the creation of a unified structure of qualifications. The process will involve a considerable degree of concentration. Training curricula will be structured as certification units which build into a complete course related to defined learning targets.

Ontwikkelingsplan sector techniek

Association of Intermediate Technical Colleges (VMTS)
Utrecht, VMTS, 1992, 42 pp.
VMTS, Postbus 2465,
NL-3500 GL Utrecht

This paper updates and develops the wishes set down in the 1981 Structure Plan for New-Style Intermediate Technical Education (MTO), relating the lines of development initially traced out to new legislation and developments (the Training Services Act and the reform of Intermediate Vocational Education) and looks at the development of part-time Intermediate Vocational Education and courses (publicly funded or in the form of contract training services). Also discussed is the development of new study areas/differentiation and technological innovation in curricula, modularization and the compilation of examination syllabuses, further training, raising standards, the recognition of educational institutions, legislation governing the establishment of businesses and international recognition.

De V van SVM: inventarisatie van vernieuwingen en organisatie in de SVM instellingen voor middelbaar beroepsonderwijs (1990-91)

Pelkmans, A., and B. de Vries
Institute of Applied Social Sciences (ITS)
Nijmegen, ITS, 1992, xvi, 124 pp.
ISBN 90-6370-844-0

The first phase of the reform of Intermediate Vocational Education - "Operation SVM" - involved mergers between Colleges of Intermediate Vocational Education to form new sectoral institutions (the "S" of SVM). This paper focuses on the new institutions in the second phase of Operation SVM, renewal in education and management (the "V" of SVM), looking at what is being done in these fields. The study was commissioned by the Institute of Educational Research (SVO) and the Vocational and Adult Education Directorate (Directie BVE) of the Ministry of Education and Science. The SVM Process Coordination Unit was also involved in the study. Important elements in Operation SVM, along with educational renewal, include organizational and managerial renewal and concern for quality. On the educational side the aspects considered were: improvements in and support for intakes, integration of long and short courses, improving student success rates, modularization and increased flexibility, contract training services etc. Organizational aspects included: post-merger management, the organizational structure of sectors, courses and services, etc.

Useful addresses

Ministerie van Onderwijs en Wetenschappen, Directie Beroepsonderwijs en Volwasseneducatie
(Ministry of Education and Science, Vocational and Adult Education Directorate)
Postbus 25000
NL-2700 LZ Zoetermeer
Tel.: 079 - 531911

Ministerie van Economische zaken
(Ministry of Economic Affairs)
Postbus 20101
NL-2500 EC The Hague
Tel.: 070 - 379 8911

Vereniging Middelbare Technische Scholen (VMTS)
(Association of Intermediate Technical Colleges)
Postbus 196
NL-3730 AD De Bilt
Tel.: 030 - 219802

Stichting voor Economisch Onderzoek der Universiteit van Amsterdam (SEO)
(Amsterdam University Institute of Economic Research)
Jodenbreestraat 23
NL-1011 NH Amsterdam
Tel.: 020 - 525 4131

Technische Universiteit Eindhoven (TUE)
(Eindhoven Technical University)
Postbus 513
NL-5600 MB Eindhoven
Tel.: 040 - 479111

Scholing Technische Informatie in het LTO (SCHOTIL)
(Training in Technical Information in Lower Technical Education)
p/a CIBB
Postbus 1585
NL-5200 BP 's-Hertogenbosch
Tel.: 073 - 124011

P

SICT
MINISTÉRIO DO EMPREGO
E DA SEGURANÇA SOCIAL

Serviço de Informação
Científica e Técnica
Praça de Londres, 2–1.° andar
P–1091 Lisboa Codex
Tel.: 3511+89 66 28
Fax: 3511+80 61 71

Bibliographical references

Caracterização das ofertas e da frequência dos cursos técnicos (ETP) e profissionais (EP): December 1990
Ministério da Educação, Gabinete de Educação Technológica Artística e Profissional (GETAP),
Oporto, GETAP,
1991, 76p
GETAP,
Av. da Boavista 1311-5,
P-4100 Oporto

The first part of this study contains details of attendance at Vocational Technical courses and Training Colleges (Grade 3), the second part an analysis broken down by NUT III, while in the third part attendance in the different areas of training and local councils in each region is shown.

Conferência Nacional - Novos rumos para o ensino Technológico e Profissional
Ministério da Educação, Gabinete de Educação Technológica Artística e Profissional (GETAP), Oporto, GETAP, 1991, 2 vol., 1.124p
ISBN 972-9386-16-1

These papers were given at the National Conference "Novos rumos para o ensino Technológico e Profissional", which dealt with the problems of technological and vocational education in Portugal. The papers are divided into 15 specialized talks and sessions covering the subjects concerned.

Disparidades regionais de formação: avaliação do sistema educação/formação e elementos para a definição de políticas do âmbito territorial
Ferrao J, et al
Instituto do Emprego e Formação Profissional (IEFP)
Lisbon, IEFP, 1991, 126 p
ISBN 972/9003/07/6

The object of this study, which formed part of an investigation into training and regional development in Europe up to 1993, was to examine the effect of the relationship between vocational training and regional development in regions in Portugal where there are disparities in development. It gives the characteristics of the education/training system (general organization of the education system, technical vocational education, vocational training structure, methods of funding). Case studies relating to two regions are given. The study concludes by defining integrated regional policies.

Documento orientador sobre a formação de professores/formadores das escolas profissionais
Ministério da Educação, Gabinete de Educação Technológica Artística e

Profissional (GETAP). Oporto, GETAP, 1991, 1 folder (12 doc.)
GETAP,
Av. da Boavista 1311-5,
P-4100 Oporto

This GETAP paper describes the plan adopted for the development of the Training of Teachers/Trainers (FP/F) of Training Colleges. It sets out the principles of the Training Colleges FP/F structures; the framework of the Training Colleges FP/F procedure; proposals for FP/F action for 1990-1991 and 1991-1992 (training to be promoted by GETAP, action to be taken by the Training Colleges, other training, distance aid and individual training scholarships). An appendix contains the results of the 1990 survey of Training Colleges, a summary of the assessment of training courses held by GETAP (1990), regulations and legislation.

Educação tecnológica nos anos 90
Azevedo J.
Rio Tinto, Edições Asa: Clube do Professor, 1991, 207 p.
Asa,
R. Afonso Henriques 742,
P-4435 Rio Tinto

A monograph containing thoughts on the problems of technical education and vocational training. Portugal is faced with the vital task of training its manpower, especially the younger generation. What is the place and role of technological education in the education system? This paper studies a wide range of aspects of the subject in depth.

Educação tecnológica no ensino secundário regular em Portugal
Ministério da Educação, Gabinete de Educação Technológica Artística e Profissional (GETAP). Oporto, GETAP, 1992, 11p
GETAP,
Av. da Boavista 1311-5,
P-4100 Oporto

A publication giving a brief description of how technical vocational education has emerged and the components of this type of training. Under the Basic Law of the Education System, Technological Education is introduced into Secondary Education courses and priority is given to scientific teaching of a more general nature (continuance of studies) or in courses orientated principally towards working life or technological courses. Secondary Education is currently being reformed; this will also affect Technical Education, the objectives of which are given here.

Necessidades de formação técnica e profissional: os quadros intermédios: síntese de alguns estudos
Ministério da Educação, Gabinete de Educação Technológica Artística e Profissional (GETAP). Oporto, GETAP, 1991, 47p
GETAP,
Av. da Boavista 1311-5,
P-4100 Oporto

A summary of the published studies on the principal vocational training requirements in Portugal, particularly those of intermediate executives, taking into consideration the macroeconomic development trends of the national economy and the employment market. Future requirements are given for three different periods: the first, until 1992; the second, the years immediately following realization of the Single Market; the third covering a longer period, even up to the beginning of the XXI century.

C - Names and addresses of institutions

Gabinete de Educação Tecnológica, Artística e Profissional (GETAP)
Ministério da Educação
Av. da Boavista, 1311 - 5o.
P-4100 Oporto
Tel: 02/694362
Fax: 02/694339

Av. 24 de Julho, 140 - 5o.
P-1300 Lisbon
Tel: 01/609500
Fax: 01/3974042

Ministério da Educação (ME)
Secretaria de Estado do Ensino Básico e Secondário
Av. 5 de Outubro, 107
P-1000 Lisbon
Tel: 01/7978793

Ministério do Emprego e da Segurança Social (MESS)
Secretaria de Estado do Emprego e Formação Profissional
(SEEFP)
Praça de Londres, 2 - 15o.
P-1091 Lisbon Codex
Tel: 01/8470010
Fax: 01/8472187

Instituto do Emprego e Formação Profissional (IEFP)
Av. José Malhoa, 11
P-1000 Lisbon
Tel: 01/7262536
Fax: 01/7265755

Associção Nacional de Escolas Professionais (ANESPO)
R. Julio Rinis 825, 5o. Esc
P-4000 Portugal
Tel: (02) 6002243
Fax: (02) 6000340

UK

BACIE
British Association for Commercial
and Industrial Education

35 Harbour Exchange Square
Marsh Wall
London E14 9GE
Tel.: 4471+987 89 89
Fax: 4471+987 98 98

Bibliografical reference

School-Industry Links
Gorman, G.
Londra, Kogan Page, 1989, 129 p.
ISBN 1-85091-863-5

This practical handbook provides information on all the major schemes currently in operation and make many suggestions for ways in which teachers can set up school-industry links and organize work-related activities in schools. Among the issues considered are how to contact firms and organize links, how to arrange work experience placements for pupils and teacher secondments in industry, enterprise education and raising funds from industry.

TVEI - The Technical and Vocational Education Initiative, is a major curriculum initiative intended to 'ensure that the education of 14-18 year olds provides young people with the learning opportunities which will equip them for the demands of working life in a rapidly changing society' (TVEI Focus Statement). A Pilot programme was launched in 1983: starting in 1987, the extension of TVEI to all students aged 14-18 has been undertaken, through a phased programme of entry involving all maintained and voluntary aided institutions, including special schools. As part of the Initiative, the Employment Department which coordinated the TVEI published the following:

Clusters and Consortia: Coordinating Educational Gold Changes in the 1990s
Saunders, L.; Stradling, B.; et al.
1991, 71 p.

Into Work: An initial study of the recruitment and performance of school leavers from the first 11 Extension programmes
1991, 46 p.

Pathways to Implementation: equality of opportunity?: managing educational entitlement
1991, 86 p.

Pathways to Implementation: a preparation for adult and working life: managing the work-related curriculum
Saunders, L.; et al.
1992, 108 p.

The above mentioned publications are available from: Employment Department,
Moorfoot,
UK - Sheffield S1 4PQ

The following titles give an external view of the TVEI:

Technical and Vocational Education Initiative: England and Wales 1983-1990
Department of Education and Science
London, HMSO, 1991, 55 p.
ISBN 0-11-27-767-X

TVEI is the largest curriculum development project funded and administered by central government. It aimed to change the curriculum experienced by people aged between 14 and 18 years old by giving their education a more practical, applied and relevant focus. It was assumed that this would create a shift in teaching styles away from abstract and theoretical approaches towards more practical work and other forms of student participation.

TVEI and the Post-16 Curriculum
Hodkinson, P.
Exeter, Wheaton Education,
1990, 52 p.
ISBN 0-08-040454-5

The post-16 scene in British education and training is changing fast. The implementation of the National Curriculum proposals for further modification of A-levels, the growth and implications of National Vocational Qualifications, the emergence of the Training Enterprise Councils and the financial implications of the Local Management of Schools are all taking place simultaneously with the TVEI extension programme. The principles and practices outlined in this book offer a guide towards a path for progress in these rapidly changing times.

TVEI and the Management of Change: an overview
Morris, M.; Murray, K.; et al.
Technical and Vocational Education Initiative
Employment Department
Availability: Employment Department, Moorfoot,
UK-Sheffield S1 4PQ,
1991, 141 p.

Given the demands made on educational planners and managers by the interaction of a national programme with new national statutes, this report addresses key issues for educational provision in the 1990's: curriculum entitlement, educational coherence, quality management and strategic planning. The management of TVEI has necessarily been tailored to varying and changing local or institutional needs and priorities. Whilst it is therefore important to explore how TVEI has been a change facilitator as much as a change agent, the book pays particular attention to the new kinds of management challenges posed by TVEI.

Work Experience and the School Curriculum
National Curriculum Council, 1991, 37 p.
ISBN 1-872676-47-2

Work experience on employers' premises is an important part of the school curriculum. It helps schools to meet the aim of the 1988 Education Reform Act to prepare pupils for 'the opportunities, responsibilities and experiences of adult life'. Since the Education (Work Experience) Act was passed in 1973 most schools and local education authorities have established schemes. Under the extension phase of the Technical and Vocational Education Initiative (TVEI) all pupils are required to have a period of work experience.

Research projects

Cohort study of technical and vocational education initiative (TVEI) extension students
National Foundation for Educational Research (NFER)
Completion Date: 1994

This survey aims to measure impact of TVEI upon young people, charting their progress through the TVEI extension and on to further education, higher education, training and work.

Evaluation of "Compacts initiative"
National Foundation for Educational Research (NFER)
Completion Date: 1991

The project aims to establish "before policy" or "early policy" on baselines against which to evaluate the progress of the Compacts Initiative. Subsequently data will be collected for this evaluation. The project draws on national surveys as well as case studies of compact schools and control non-compact schools within five LEAs. The current project is a first phase and, if satisfactory, the work may be extended.

Special educational needs in technical and vocational education initiative (TVEI)
Social Community Planning and Research and National Bureau for Disabled Students
Completion Date: 1991

The aim of this study is to examine the effectiveness of different aspects of TVEI for young people with special educational needs. The study will aim to identify practices, methods and approaches which best meet the central requirements for TVEI for people with special educational needs.

Contact person in the Employment Department for all the above studies is:

Louise Blakey, Tel.: 0742/593523.

Useful addresses

Compact Enquiry Point
Partnership Support Unit
Employment Department
Rm. E451
UK-Moorfoot, Sheffield, S1 4PQ
Tel.: 0742/59 32 82

National Curriculum Council (NCC)
Albion Wharf
25 Skeldergate
UK-York, YO1 2XL
Tel.: 0904/62 25 33

Technical and Vocational Education Initiative (TVEI)
TVEI & Partnership Branch
Employment Department
UK-Moorfoot, Sheffield, S1 4PQ
Tel.: 0742/59 44 10

National Foundation for Educational Research (NFER)
The Mere
Upton Park
Slough
UK-Berkshire SL1 1DQ

Venta y suscripciones • Salg og abonnement • Verkauf und Abonnement • Πωλήσεις και συνδρομές
Sales and subscriptions • Vente et abonnements • Vendita e abbonamenti
Verkoop en abonnementen • Venda e assinaturas

BELGIQUE / BELGIË

Moniteur belge /
Belgisch Staatsblad

Rue de Louvain 42 / Leuvenseweg 42
B-1000 Bruxelles / B-1000 Brussel
Tél. (02) 512 00 26
Fax (02) 511 01 84

Autres distributeurs /
Overige verkooppunten

Librairie européenne/
Europese boekhandel

Rue de la Loi 244/Wetstraat 244
B-1040 Bruxelles / B-1040 Brussel
Tél. (02) 231 04 35
Fax (02) 735 08 60

Jean De Lannoy

Avenue du Roi 202 /Koningslaan 202
B-1060 Bruxelles / B-1060 Brussel
Tél. (02) 538 51 69
Télex 63220 UNBOOK B
Fax (02) 538 08 41

Document delivery:

Credoc

Rue de la Montagne 34 / Bergstraat 34
Bte 11 / Bus 11
B-1000 Bruxelles / B-1000 Brussel
Tél. (02) 511 69 41
Fax (02) 513 31 95

DANMARK

J. H. Schultz Information A/S

Herstedvang 10-12
DK-2620 Albertslund
Tlf. 43 63 23 00
Fax (Sales) 43 63 19 69
Fax (Management) 43 63 19 49

DEUTSCHLAND

Bundesanzeiger Verlag

Breite Straße 78-80
Postfach 10 80 06
D-W-5000 Köln 1
Tel. (02 21) 20 29-0
Telex ANZEIGER BONN 8 882 595
Fax 2 02 92 78

GREECE/ΕΛΛΑΔΑ

G.C. Eleftheroudakis SA

International Bookstore
Nikis Street 4
GR-10563 Athens
Tel. (01) 322 63 23
Telex 219410 ELEF
Fax 323 98 21

ESPAÑA

Boletín Oficial del Estado

Trafalgar, 29
E-28071 Madrid
Tel. (91) 538 22 95
Fax (91) 538 23 49

Mundi-Prensa Libros, SA

Castelló, 37
E-28001 Madrid
Tel. (91) 431 33 99 (Libros)
431 32 22 (Suscripciones)
435 36 37 (Dirección)
Télex 49370-MPLI-E
Fax (91) 575 39 98

Sucursal:

Librería Internacional AEDOS

Consejo de Ciento, 391
E-08009 Barcelona
Tel. (93) 488 34 92
Fax (93) 487 76 59

Llibreria de la Generalitat
de Catalunya

Rambla dels Estudis, 118 (Palau Moja)
E-08002 Barcelona
Tel. (93) 302 68 35
302 64 62
Fax (93) 302 12 99

FRANCE

Journal officiel
Service des publications
des Communautés européennes

26, rue Desaix
F-75727 Paris Cedex 15
Tél. (1) 40 58 75 00
Fax (1) 40 58 77 00

IRELAND

Government Supplies Agency

4-5 Harcourt Road
Dublin 2
Tel. (1) 61 31 11
Fax (1) 78 06 45

ITALIA

Licosa SpA

Via Duca di Calabria 1/1
Casella postale 552
I-50125 Firenze
Tel. (055) 64 54 15
Fax 64 12 57
Telex 570466 LICOSA I

GRAND-DUCHÉ DE LUXEMBOURG

Messageries du livre

5, rue Raiffeisen
L-2411 Luxembourg
Tél. 40 10 20
Fax 40 10 24 01

NEDERLAND

SDU Overheidsinformatie

Externe Fondsen
Postbus 20014
2500 EA 's-Gravenhage
Tel. (070) 37 89 911
Fax (070) 34 75 778

PORTUGAL

Imprensa Nacional

Casa da Moeda, EP
Rua D. Francisco Manuel de Melo, 5
P-1092 Lisboa Codex
Tel. (01) 69 34 14

Distribuidora de Livros
Bertrand, Ld.ª

Grupo Bertrand, SA

Rua das Terras dos Vales, 4-A
Apartado 37
P-2700 Amadora Codex
Tel. (01) 49 59 050
Telex 15798 BERDIS
Fax 49 60 255

UNITED KINGDOM

HMSO Books (Agency section)

HMSO Publications Centre
51 Nine Elms Lane
London SW8 5DR
Tel. (071) 873 9090
Fax 873 8463
Telex 29 71 138

ÖSTERREICH

Manz'sche Verlags-
und Universitätsbuchhandlung

Kohlmarkt 16
A-1014 Wien
Tel. (0222) 531 61-0
Telex 112 500 BOX A
Fax (0222) 531 61-39

SUOMI/FINLAND

Akateeminen Kirjakauppa

Keskuskatu 1
PO Box 128
SF-00101 Helsinki
Tel. (0) 121 41
Fax (0) 121 44 41

NORGE

Narvesen Info Center

Bertrand Narvesens vei 2
PO Box 6125 Etterstad
N-0602 Oslo 6
Tel. (22) 57 33 00
Telex 79668 NIC N
Fax (22) 68 19 01

SVERIGE

BTJ

Tryck Traktorwägen 13
S-222 60 Lund
Tel. (046) 18 00 00
Fax (046) 18 01 25
30 79 47

SCHWEIZ / SUISSE / SVIZZERA

OSEC

Stampfenbachstraße 85
CH-8035 Zürich
Tel. (01) 365 54 49
Fax (01) 365 54 11

ČESKÁ REPUBLIKA

NIS ČR

Havelkova 22
130 00 Praha 3
Tel. (2) 235 84 46
Fax (2) 235 97 88

MAGYARORSZÁG

Euro-Info-Service

Club Sziget
Margitsziget
1138 Budapest
Tel./Fax 1 111 60 61
1 111 62 16

POLSKA

Business Foundation

ul. Krucza 38/42
00-512 Warszawa
Tel. (22) 21 99 93, 628-28-82
International Fax&Phone
(0-39) 12-00-77

ROMÂNIA

Euromedia

65, Strada Dionisie Lupu
70184 Bucuresti
Tel./Fax 0 12 96 46

BĂLGARIJA

Europress Klassica BK Ltd
66, bd Vitosha
1463 Sofia
Tel./Fax 2 52 74 75

RUSSIA

Europe Press

20 Sadovaja-Spasskaja Street
107078 Moscow
Tel. 095 208 28 60
975 30 09
Fax 095 200 22 04

CYPRUS

Cyprus Chamber of Commerce and Industry

Chamber Building
38 Grivas Dhigenis Ave
3 Deligiorgis Street
PO Box 1455
Nicosia
Tel. (2) 449500/462312
Fax (2) 458630

TÜRKIYE

Pres Gazete Kitap Dergi
Pazarlama Dağitim Ticaret ve sanayi AŞ

Narlibahçe Sokak N. 15
Istanbul-Cağaloğlu
Tel. (1) 520 92 96 - 528 55 66
Fax 520 64 57
Telex 23822 DSVO-TR

ISRAEL

ROY International

PO Box 13056
41 Mishmar Hayarden Street
Tel Aviv 61130
Tel. 3 496 108
Fax 3 544 60 39

UNITED STATES OF AMERICA / CANADA

UNIPUB

4611-F Assembly Drive
Lanham, MD 20706-4391
Tel. Toll Free (800) 274 4888
Fax (301) 459 0056

CANADA

Subscriptions only
Uniquement abonnements

Renouf Publishing Co. Ltd

1294 Algoma Road
Ottawa, Ontario K1B 3W8
Tel. (613) 741 43 33
Fax (613) 741 54 39
Telex 0534783

AUSTRALIA

Hunter Publications

58A Gipps Street
Collingwood
Victoria 3066
Tel. (3) 417 5361
Fax (3) 419 7154

JAPAN

Kinokuniya Company Ltd

17-7 Shinjuku 3-Chome
Shinjuku-ku
Tokyo 160-91
Tel. (03) 3439-0121

Journal Department

PO Box 55 Chitose
Tokyo 156
Tel. (03) 3439-0124

SOUTH-EAST ASIA

Legal Library Services Ltd

STK Agency
Robinson Road
PO Box 1817
Singapore 9036

AUTRES PAYS
OTHER COUNTRIES
ANDERE LÄNDER

Office des publications officielles
des Communautés européennes

2, rue Mercier
L-2985 Luxembourg
Tél. 499 28-1
Télex PUBOF LU 1324 b
Fax 48 85 73/48 68 17

3/93

Vocational trai
esperienza professionale, un capitale sottovalutato
zione professional
Europe: a market with frontiers
bildung für morgen — eine Herausforderung für die Ausbilder
La esencia de las cualificaciones
Formación Profesional
Formation professionnelle

Subjects of »Vocational Training«

- **Role of the social partners in initial and continuing vocational training**
- **Education + Training = the keys to the future**
- **Our European neighbours (The vocational training systems of the CMEA countries - USSR, CSFR, Poland, GDR, Hungary and Bulgaria)**
- **Roads to an initial vocational qualification**
- **Experienced workers – reserve capital**
- **Tomorrow's training – A challenge for trainers**
- **Qualifications for a changing world**

*Subjects which confront everyone who has to do with vocational training. Subjects covered in **Vocational Training,** a publication of the European Centre for the Development of Vocational Training.*

***Vocational Training** tries to make the complex field of vocational training in Europe more transparent by way of a constant exchange of opinions, information and models amongst all EC Member States.*

***Vocational Training** is an indispensable working tool for all decision-makers and trainers, in particular for those who look beyond national boundaries and are interested in co-operation at Community and international levels.*

As a Community organization, CEDEFOP also has a contribution to make towards the achievement of the internal market. Through its research, comparative studies, its information and documentation service and its work on the comparability of training qualifications, CEDEFOP plays its part in promoting the social dimension of the 1992 objective.

*The journal **Vocational Training** is published as from 1990 twice a year in nine languages (DA, DE, EN, ES, FR, GR, IT, NL, PT). The annual subscription covers all issues of the publication **Vocational Training** published in the course of the calendar year (January to December). Unless notice of cancellation is given by 30 November, the subscription will be extended automatically for a further calendar year.*

*The publication **Vocational Training** will be sent to you by the EC Office for Official Publications, Luxembourg. The invoice will be sent to you by the responsible EC distributor.*

The subscription price does not include VAT.
Please do not pay the amount due until you have received the invoice.

Yearly subscription (excl. VAT): ECU 10; UKL 7.50; IRL 8.00; USD 12.10. Single copies (excl. VAT): ECU 6; UKL 4.50; IRL 4.70; USD 7.25.

CEDEFOP
European
Centre for the
Development of
Vocational Training,
Bundesallee 22
D-1000 Berlin 15
Tel.: (030) 88 41 20
Telex:
184 163 eucen d
Telefax:
(030) 88 41 22 22

Prices (excluding VAT) in Luxembourg

Single copy	ECU 6
Annual subscription	ECU 10

OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES
L-2985 Luxembourg

ISSN 0378-5068

HX-AA-92-002-EN-C

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

ERIC

NOTICE

REPRODUCTION BASIS

☑ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

(9/92)